4K92-7

KODIAK MANAGEMENT AREA

ANNUAL FINFISH MANAGEMENT REPORT

1988

By

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and

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Regional Information Report[1] No. 4K92-7

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615-6399

February 1992

[1] The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished divisional reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may contain preliminary data; this information may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without the prior approval of the author or the Division of Commercial Fisheries.

ACKNOWLEDGEMENTS

The authors express their appreciation to the many seasonal employees, Kevin Brennan, Kim Rudge, Leslie Scott, Debo Robinson, Tracy McKinion, Ed Sampson, Dennis Gretsch, Tom Dinnocenzo, Jon Becker, Tom Pearson, Mo Lambdin, Tom Emerson, Cort and Katrina Neff, Stacy Schwantes, Brenda Schwantes, Tricia Crandall, Ed Hajdys, Joe Dinnocenzo, Paul Kuriscak, Bruce McIntosh and Bob Storhr who worked during the 1988 herring and salmon season. Thanks to Lucinda Neel, Sharon Theis, Joanne Shaker, Jim Blackburn, Larry Greer and Joan Ried for their technical support. Special thanks to Kevin Brennan and Dennis Gretsch for editing, corrections, and compilation.

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KODIAK SALMON FISHERIES

Introduction

Boundaries

The Kodiak Management Area comprises the entire Kodiak archipelago and that portion of the Alaska Peninsula which drains into Shelikof Strait between Cape Douglas and Kilokak Rocks at Imuya Bay (Figure 1). The archipelago is approximately 200 miles long, extending from Shuyak Island south to the Trinity Islands. The Alaska Peninsula portion is about 300 miles long and is separated from the archipelago by the Shelikof Strait which averages 45 miles in width (Figure 1).

Management Units

Kodiak salmon management is structured around seven districts subdivided into 52 sections (Figure 2 and Appendices A.1 - A.16). These management units are occasionally further subdivided in-season by emergency order to adjust fishing effort on unexpected salmon surpluses or deficits. Each management unit defines a traditional geographical harvest unit managed for specific in-unit stocks and/or traditional fishing patterns associated with these units.

Production Potential

Of the 386 salmon streams in the Kodiak Area, 36 support sockeye populations of varying size, four support viable chinook populations, approximately 174 support coho populations, approximately 150 have productive chum populations, and the entire set of 386 have pink populations. These salmon streams are distributed as follows throughout the area: 74 occur in the Alaska Peninsula portion (Mainland District), and the remaining 312 occur in the

archipelago; the number of streams by Island group places 211 on Kodiak Island, 71 on Afognak Island, 18 on Shuyak Island, and 12 on the Trinity Island group (Table 1).

The long term average salmon production potential for the Kodiak Management Area will be realized if the desired escapement levels are achieved for each species and for each significant production system (Table 2).

Historical Perspective

Gear

The earliest documented commercial salmon gear were the cannery-owned large, heavily manned beach seine operations that fished near the terminus of Karluk River. This evolved into a period dominated by cannery-owned traps combined with fishermen owned set-gillnet, purse seine, and beach seine operations and then to a post-statehood situation dominated by purse seine, set-gillnet, and beach seine gear in descending order of abundance. With the inception of limited entry in 1974, the post-statehood relationship between gear abundance was permanently established.

The geographical areas currently open to specific gear types have remained unchanged since 1974 except for three situations. In the mid 1970's, in an attempt to accelerate the rebuilding of Karluk stocks, the area between Rocky Point and Cape Uyak in the Karluk District was closed to set gillnetting. No documented gillnetting had occurred in that area since the early 1960's so no existing gillnet sites were affected. More importantly, several prime seining locations which greatly impacted Karluk stocks were made manageable, i.e. a critical area could be kept closed to provide a maximum build-up area for the severely depleted Karluk sockeye and pink stocks. A second gear/area adjustment occurred in the late 1970's in the Alitak District. The common boundary between the

Cape Alitak Section, the Moser/Olga Bay section and the Portage-Deadman Section was adjusted to stabilize an unclear boundary description and increasing gear conflicts. The area open to set gillnetting was reduced from Cape Alitak to its current location on Tanner Head and was increased from a point north of Fox Island east to its current location. The final gear/area adjustment was made in Zachar Bay where, in order to alleviate fixed and mobile gear conflicts at the north "marker-set", the closed water sanctuary markers were reduced to their current locations and the new "open-area" was made an exclusive seine area. This was consistent with the exclusive seine areas adjacent to the closed water boundaries in other major westside bays open to both gear types.

Processing

Commercial salmon processing in the Kodiak area has evolved from small salting/pickling operations, to almost exclusively canning, to the current heavy divergence into frozen whole products which supplement canned salmon, the main processed product. In recent years, Kodiak processors have probed into frozen fillets, frozen minced, unfrozen fresh, and salmon surimi. The physical and operational nature of Kodiak processing plants has evolved from scattered seasonally-operated canning operations to today's highly efficient, multi-tasked, shorebased plants congregated within Kodiak's city limits. The current year round fisheries supporting these plants have provided advanced processing technology that has yielded diverse high quality salmon products in recent years.

Currently there are 16 operational shorebased processing plants in the Kodiak Management Area. Of these, 12 are within Kodiak city limits and 10 of these process salmon. The remaining outlying plants also process salmon. Thus, there is a total of 12 shorebased salmon processing plants within the Kodiak Management Area. Additionally, one Chignik shorebased processing plant

regularly processes Kodiak caught salmon, as does one Cook Inlet shorebased processing plant (Table 3).

Estimated sustained processing capacity of Kodiak shorebased salmon processors for the 1988 season was approximately 1,100,000 salmon per day; this includes both canned and frozen processing. If the two Kodiak shorebased plants which did not process salmon opted to do so, it is estimated that the aforementioned capacity could have been expanded to 1,200,000 salmon per day. Floating processors are not common to the Kodiak Area. Only on large even-year pink salmon returns when fishing time is expected to be abundant and thus a steady supply of fish assured, have floating processors operated in the Kodiak Area. Nevertheless, three floating salmon processor did operate in Kodiak during the 1988 season for a very short period.

Management

The Kodiak Management Area salmon staff is comprised of an Area Management Biologist (F.B. III), an Assistant Area Management Biologist (F.B. II), approximately 15 seasonal employees (F.B. I's and F.T. III's) and a seasonal Boat Officer. The Kodiak salmon research staff includes an Area Research Biologist (F.B. II) and approximately four seasonal employees. A Regional Management Coordinator (F.B. IV) and a Regional Research Biologist (F.B. III) oversee each of the operations.

Basic in-season management activities center around daily evaluations of actual run strength in comparison to pre-season expectations by species. The aforementioned management staff's in-season duties include frequent (several times daily) contact with all buyers to collect updated harvest data by area and species and with as many fishermen as possible to collect their insights into run strength and distribution as well as comments on prevailing in-season management activities. Additional activities include the

collection of escapement data from the sixteen various fish-weirs (twice daily) and numerous aerial observations of fish "build-ups" and actual escapements into management "index systems". Additional in-season information on returning stock strength is obtained from an ADF&G sockeye test fishery in the Alitak District.

Salmon Stock Status

Chinook. The Kodiak Area has two natural occurring chinook salmon populations and two introduced populations. The former are major systems (Karluk and Ayakulik) where annual escapements are monitored by fish weirs; the latter are lesser populations whose escapement is monitored by either fish weir (Fraser) or aerial survey (Pasagshak). There are no directed commercial fisheries on these stocks. Any harvest is incidental to directed fishing time on sockeye and pink salmon. A moderate sport fishery occurs on Karluk and Ayakulik stocks; a large portion of this effort is commercial sportfishing effort. The considerably smaller Fraser population is closed to sportfishing. The Pasagshak population, smallest of the four, has been protected from all directed sportfishing and incidental commercial fishing to allow a viable spawning population to become established. Current stock status assessment by both ADF&G and U.S.F.W.S. (Kodiak National Wildlife Refuge) for the three large systems is that they are healthy, escapement requirements are being achieved, and the existing regulatory structure for subsistence, sport and commercial fishing adequately protects these stocks at current levels of exploitation. The success of the Pasagshak "introduction" remains uncertain, however recent trends in escapement are favorable.

Sockeye. Of the 36 known sockeye populations in the Kodiak Area, four are considered to be major (Karluk, Ayakulik, Upper Station, and Fraser in descending order of potential production) and nine are considered to be significant minor populations (Litnik, Uganik, Saltery, Kaflia, Pauls, Swikshak, Little, Thorsheim, and Portage in

descending order of potential production). The remaining 23 systems are comparatively minor systems and normally are not exploited by directed commercial effort.

The four major systems generally provide approximately 80 percent of Kodiak's current sockeye production. Directed fisheries on these stocks are intense and require extensive management activities from June 9 through September 15. Two of these systems (Karluk and Upper Station) have distinct manageable early and late runs (early: June 9 - July 15; late: July 16 - September 15) while the other two are primarily early runs. All stocks from these four major systems are considered reasonably healthy. Combined maximum production from these stocks has not yet been realized and possibly will not be until the early 1990's. The rebuilding efforts on these stocks began in 1970 and only recently have the initial benefits of these efforts been evident. These systems should remain relatively stable and productive providing existing "fish-weir" programs and management strategies are not adversely affected. The nine significant minor systems annually account for approximately five percent of Kodiak's current sockeye production. Some of these systems are monitored via fish weirs (Litnik, Saltery, Pauls, Thorsheim) and the remainder by aerial survey. Information on the former, being more timely and precise, yields the best opportunity for stock management while management of the latter stocks is more precarious. Of these nine systems, five are considered to be moderately healthy and the remaining four marginally healthy based upon 1988 production. A more conservative management approach for all nine systems will prevail in upcoming years. Also, it is expected that several enhancement and rehabilitation projects currently being considered could reverse current negative production trends for some of these stocks. Because these populations can offer a relatively high yield per unit effort by a very efficient, directed commercial seine effort and because they generally don't receive the degree of biological protection afforded larger sockeye populations, these populations

remain the most vulnerable to over-exploitation. Current subsistence and sportfishing effort on all of these stocks have not been adversely affected by existing regulations or management strategies. However, the relatively small, fragile populations of some minor commercially insignificant systems which are experiencing rapidly increasing subsistence harvests (Buskin and Barabara systems) may be approaching maximum exploitation. Sportfishing for sockeye salmon on these same systems is currently minimal. These systems will require close monitoring in the future to ensure biological protection and that future subsistence uses will not be jeopardized.

Coho. This species has in recent years received the greatest increase in exploitation of any salmon species in the Kodiak Area. All user groups have a keen interest in this species and the resultant allocation problems have been compounded by Kodiak's coho data base shortcomings. As indicated earlier, approximately 174 systems support coho populations, however approximately 20 percent of these populations generate 80 percent of the area's production. The nature of these major systems (most are lake systems, several of which have fish weirs) almost ensures that minimum escapements will be achieved if prudent in-season management strategies prevail. The greatest concern is for the remaining 80 percent of the streams whose populations are relatively very small and subject to over exploitation.

Pink. Current Kodiak Area pink salmon production is relatively stable at an above average level and should remain so, provided existing management strategies and in-season management activities are retained, and extreme environmentally-induced fluctuations do not prevail. The historical data bases on harvest and escapement are fairly extensive and current management personnel are intimately familiar with approximately 20 years of Kodiak pink salmon production and management. Pre-season forecasts are very reliable in projecting extremes for total area production and for

major production systems. Forecast precision is reliably adequate to ensure that ADF&G management goals (adequate escapement and orderly fishing opportunities on quality fish) and industry goals (maximum cost efficient production) are commonly attained. Because pink salmon represent the base of Kodiak salmon production (averaging 80 percent of total area harvest) and because of the aforementioned stability associated with management of this species, the long term status of this species is projected to be excellent.

Chum. Increasing emphasis on chum management over the past 10 years has substantially increased not only production, but the data base necessary to insure that current management will be continued and improved upon. Increases in directed fishing on specific chum stocks and the special difficulties associated with evaluating in-season run strength and timing for these stocks has required that intensive chum stock management strategies be developed.

Currently chum escapement requirements and the use of in-season "build-up" and escapement data are being reevaluated. Both historical and in-season harvest data and industry input are also being reevaluated. Because of the similarities between pink and chum salmon freshwater and early-marine portions of their life cycle, because of our understanding and annual evaluation of pink salmon survival (pre-emergent fry program), and because of our ability to take advantage of the multi-age class nature of annual chum returns to develop harvest projections (through catch sampling) the future status of this species is expected to be excellent.

1988 Salmon Season Summary

General

The 1988 Kodiak Area commercial salmon fishery can be characterized as a record year in terms of total ex-vessel earnings

(approximately $103,800,000) and average earnings by gear type (Table 4). Additionally, management activities can also be characterized as being successful in that escapement requirements were adequately achieved for all species. Pre-season harvest projections were attained and/or exceeded for all species (Table 5).

The 1988 commercial salmon season lasted 124 days covering the period from June 9 through October 10, the dates of the first and last landings. During that time period, a total of 524 permit holders (323 purse seine, 180 set gillnet, and 22 beach seine) made 19,402 landings, to a total of 16 buyers, which yielded a total commercial harvest of 18,712,368 salmon (Table 6).

Historically, the 1988 harvest of 19.0 million salmon (all species[1]) was more than twice the 107 year average of 7.9 million (1882-1988) and approximately 3.3 million fish greater than the recent even-year average (1984-1988) of 15.7 million (Table 7 and Figure 3). A breakdown by species shows that in comparison to the 5 year average (1984-1988), a period of above average production, the 1988 chinook harvest of 22,000 was 2.8 times greater, the sockeye harvest of 2.7 million was 1.2 times greater, the coho harvest 1.3 times greater, the pink harvest 1.5 times greater, and the chum harvest 1.7 times greater.

Industry

In 1988, there were 16 buyers, operating 19 processing plants (16 were shorebased and 3 floating processing facilities), which bought fish in the Kodiak Area (Table 3). Of the shorebased facilities, 10 were located within Kodiak city limits, four within Kodiak

[1]Includes salmon harvested for Kitoi Bay Hatchery cost recovery and Olga Bay test fishery. Total Salmon Harvest = 19,009,757.

Borough, one in Seldovia, and one in the Chignik Management Area at Anchorage Bay. Of the floating facilities, one was associated with a Kodiak shorebased facility and two were independent transient buyers who operated in Kodiak for a relatively short time enroute from Bristol Bay fisheries to Southeastern fisheries. Of the Kodiak-based processors, two had two processing operations each (Columbia Ward had two shorebased plants and Kodiak Salmon Company had both a shorebased and a floating facility).

The 1988 effort levels (active gear) were above average for purse seine and gillnet gear and below average for beach seine gear (Table 8 and Figure 4).

The 1988 season was noteworthy in terms of inter-area disharmony generated by the relatively large interception of Cook Inlet bound sockeye in Kodiak Area waters. Proposed regulation change No. 294 to be deliberated before the Board of Fisheries in March 1989 reflects the concern of Cook Inlet fishermen (Appendix B.1 and B.2), while ADF&G Regional Data Reports No. 4K88-6 and 4K88-7 review and summarize the interception from both an "in-season perspective" and "post-season analysis".

The 1988 season was also noteworthy in terms of intra-area user group harmony; the traditional aggravation between fixed and mobile gear was at its lowest level in over a decade. The two board approved allocation plans, the Cape Igvak fishery plan and the Alitak District fishery plan (Appendix C.1; pages 14,15, and B.2; pages 26-28), both worked extremely well per the biological and allocative requirements detailed in each plan. The two other allocative plans in effect, both of which have tentative board approval, also worked extremely well; these two plans are the Westside Kodiak fisheries plan and the Kitoi Bay hatchery management plans (Appendix C.1; pages 16 and 17).

ADF&G Management

Implementing these plans and other in-season management actions required the issuance of 24 in-season emergency orders over a 124 day period, which affected fishing time in 52 management units (Appendix D.1 and D.2). This reflects the level of in-season action required to achieve not only the aforementioned considerations but also the inter- and intra- gear allocation considerations crucial to a successful management program.

Escapement

Basic escapement requirements (Table 9) were achieved for all species, for all major systems and for almost all minor systems. In 1988, the overall escapements for all species exceeded historical averages and were consistent with recent annual trends in escapement magnitude (Table 10). Escapements are determined by combining peak counts from aerial surveys (Appendix E.1), foot survey counts and hand tallied counts from those systems with fish weirs (Table 11 and E.2-E.23). Fish weir counts represent actual hand-tallied counts of escapement fish. This represents a major portion of the total chinook, sockeye, and coho salmon escapement (essentially 100%, 95%, and 85%, respectively), a very significant portion of pink escapement (36%), and a minor portion of the chum escapement (5%). The fish weir is a major management tool in the Kodiak Area and has annually proved its value to guiding in-season management actions (Table 12).

A brief escapement summary by species for 1988 is as follows:
Chinook salmon escapements were excellent occurring at record levels (Appendix E.3). The 1988 escapement was 1.8 times the recent 5 year average (Table 10). The total indexed chinook escapement 35,139 is a summation of counts from the Karluk, Ayakulik and Dog Salmon weirs but does not include an estimated escapement of 125 chinook into the Pasagshak system.

Sockeye escapements in general were good to excellent for all major systems and fair to good for the minor systems. For the four major systems desired escapement goals were exceeded in the Fraser and Upper Station systems, were reached in the Ayakulik system, but were short at Karluk, although the minimum escapement requirement for both early and late Karluk stocks were exceeded (Table 13 and Table 14). The significance of these four systems and the importance of maintaining a stable level of adequate escapement to them is emphasized by the fact that these systems accounted for approximately 86% of the 1988 sockeye escapement and, if producing at desired levels should be capable of providing an average harvest of approximately 2.5 million red salmon. The minor systems on Kodiak Island and the Mainland Districts received fair to good escapement in 1988 (Appendix E.3). Uganik River may have been the exception where it appears that minimum escapement requirements were not achieved (Table 15). Afognak District minor sockeye systems received near minimum escapement levels.

Coho escapements were reasonably good into most major systems (Appendix E.3). The indexed total escapement of 105,000 compared favorably with the 5 year average of 148,000 fish (Table 10). Coho minimum escapement goals (Table 16 and Table 17) were achieved into all systems having fish weirs except for the Karluk system. Minimum numbers of coho had not been tallied prior to the Karluk weir being removed due to high water. However, an aerial evaluation of the Karluk Lagoon coho build-up prior to weir removal indicated enough coho to achieve minimum escapement requirements but only a marginal harvestable surplus. Consequently there was no directed commercial coho fishery in the vicinity of Karluk Lagoon in 1988. It appears that most minor systems which were surveyed had good escapement. For those minor unsurveyed systems occurring adjacent to surveyed systems it is reasonable to assume that escapements were comparable.

Pink salmon escapements were generally good to excellent in most systems (Appendix E.3). The indexed total pink escapement of 4.4 million was equal to the recent even year average (Table 10). It was a well distributed escapement to all management units, and it is estimated that approximately 85% went to the index streams (those used for forecasting and in-season management). However, four of the major producing systems received only minimum escapement levels (Table 18 and Table 19). Two of these, Karluk and Ayakulik, are the two largest pink salmon producers in the management area and are major contributors to even-year pink harvests in the S.W. Afognak, N.W. Kodiak, and S.W. Kodiak Districts. The other two systems, Deadman and Dog Salmon, are in the top 10 of Kodiak's pink salmon producers, and together can account for at least 50% of the Alitak District pink production. These escapement shortfalls were attributed, in the case of Karluk and Ayakulik, to an abnormal migration pattern which probably resulted in a greater than expected exploitation on these stocks in non-terminal areas, and in the case of Deadman and Dog Salmon, to a high exploitation rate, on a below average run to these systems, as a result of liberal fishing time in the Alitak District associated with above average sockeye production from the Upper Station system. Again, minimum pink escapement requirements were achieved for all four of these systems.

Chum salmon escapements were considered good to excellent for almost all major systems (Appendix E.3). The 1988 chum salmon escapement was greater than the recent 5 year average (1984-1988) (Table 10). It was one of the historically better escapements in terms of volume and distribution. Almost all major systems achieved above average escapement (Table 20).

Fishery Chronology
(June 9 - October 10)

The following chronology of the 1988 season (Figure 5) depicts species-specific fisheries and briefly discusses in-season harvest activities and management strategies:

Chinook Salmon Harvest (June 9 - October 10)

Chinook salmon in the Kodiak Area are not a targeted species either by commercial seine or gillnet gear or by directed ADF&G management activities. The actual harvests are incidental to targeted sockeye and pink salmon fisheries. The geographic breakdown of these harvests is based upon historical harvest data and the projected harvests are meant to reflect normal harvest scenarios on above average-sized runs (Table 21).

The 1988 Chinook harvest was of record proportions (Figure 6) with almost half of the harvest occurring on Kodiak Island's Westside. The average weight for chinook harvested in 1988 was 13.0 pounds which is consistent with historical average weights.

A conservative ex-vessel value to all permit holders for chinook salmon in 1988 was 0.4 million dollars based upon an average in-season grounds price of $1.45/lb (Table 22). This was approximately less than one percent of Kodiak's total salmon ex-vessel value.

Purse seine gear was the major harvester of chinook salmon (96% of total chinook harvested), yet chinook represented less than 1% of both this gear type's total salmon harvest and it's total ex-vessel value. Beach seine gear was essentially an insignificant harvester of chinook salmon (< 1%), consequently this species represented less than 1% of both this gear type's total salmon harvest and it's total ex-vessel value. Set gillnet gear was a significantly minor

harvester of chinook salmon (4%) and this species represents less than 1% of both this gear type's total salmon harvest and it's total exvessel value (Table 23).

Early-Run Sockeye Salmon Fisheries (June 9 - July 15)

The 1988 early-run sockeye harvest exceeded pre-season expectations by 393,000 fish (Table 24). The Cape Igvak projected harvest did not develop because of the weak early-run Chignik stock. The Cape Igvak management plan's allocative and biological requirements were strictly adhered to. The Karluk harvest did not develop as expected, being approximately 75,000 fish short, whereas the actual harvests on Ayakulik and Fraser stocks exceeded pre-season expectations by 326,000 sockeye combined. The Upper Station and minor systems harvests were similar to pre-season expectations. The unexpected contribution of migrant Cook Inlet stocks to the Kodiak Area's harvest during this time period was at a record level.

Late Run Sockeye Salmon Fisheries (July 16 - September 15)

The 1988 late-run sockeye harvest exceeded pre-season expectations by 506,000 fish (Table 25). While the Cape Igvak, Karluk and minor systems production fell short of pre-season projections, the Ayakulik and Upper Station production exceeded expectations by 450,000 fish combined. Also, the unexpected contribution of migrant Cook Inlet stocks provided a significant addition to this harvest.

Overall, the sockeye salmon harvest in 1988 was well above average (Figure 7). A conservative ex-vessel value to all permit holders for sockeye salmon in 1988 was 39.2 million dollars, based upon an average in-season grounds price of $2.55/lb (Table 22). This was approximately 42% of Kodiak's total salmon ex-vessel value.

Purse seine gear was the major harvester of sockeye salmon (68% of total sockeye harvested), yet sockeye only provided 12% of this gear type's total salmon harvest, but did provide 38% of it's total ex-vessel value. Beach seine gear was an insignificant harvester of sockeye salmon (< 01%) and this species represented a very minor contribution (1%) of this gear type's total salmon harvest and only (4%) of its total ex-vessel value. Set gillnet gear was a very significant harvester of sockeye salmon (32%), and this species provided a significant portion (27%) of this gear type's total salmon harvest and a significant major (60%) of it's ex-vessel value in 1988 (Table 26).

Coho Salmon Fisheries (August 1 - October 10)

The 1988 coho harvest exceeded pre-season expectations by 153,000 fish (Table 27). This harvest was 1.3 times greater than the recent 5 year average and was 3.7 times greater than the 107 year average. It was the second largest coho harvest record for the Kodiak Area (Figure 8). Increased indexed escapements along with favorable environmental conditions have combined to improve production from the estimated 174 coho streams in this area.

Directed management for this species usually begins during the first week of August and builds in intensity through season's end. The majority of the harvest occurred between August 1 and October 10. Because a significant proportion of the coho harvest occurred as incidental harvest during the pink, chum, and late-sockeye management period, the liberal amount of fishing time associated with this period reduced the numbers of coho reaching terminal areas in 1988. Consequently, terminal coho fisheries in 1988 were not as plentiful as in past years with less fishing time. Again, this 1988 scenario was anticipated because of the projected large pink returns, and subsequent management action ensured that adequate coho escapement was achieved.

A conservative ex-value to all permit holders for coho salmon in 1988 was 3.9 million dollars, based upon an average in-season grounds price of $1.50/lb (Table 22). This was approximately four percent of Kodiak's total salmon ex-vessel value.

Purse seine gear was the major harvester of coho (88% of total coho harvested) yet coho only provided 2% of this gear type's total salmon harvest and only 5% of its total ex-vessel value in 1988. Beach seine gear was an insignificant harvester of coho (< 1%), and this species represented a very minor contribution (< 1%) of this gear type's total salmon harvest and only 1% of its total ex-vessel value. Set gillnet gear was a significant harvester of coho (12%), yet coho only represented 1% of this gear type's total salmon harvest and only 3% of its total ex-vessel value in 1988 (Table 28).

Pink Salmon Fishery (July 6 - September 5)

The 1988 pink salmon actual return, although similar to the projected return, yielded considerable consternation in-season due to late run-timing, abnormal migration patterns, and unexpected differential production between major pink systems. Nevertheless, the forecasted total return (Appendix F.1-F.5) was extremely accurate and resulted in all pre-season harvest objectives, and most desired escapement objectives, being achieved.

The total 1988 harvest was approximately one (1) million fish less than expected (Table 29). However, it was still the fourth largest pink salmon harvest on record (Figure 9). The supplemental production from Kitoi hatchery was considerably less than expected, however, the abnormal migration patterns experienced in 1988 make it conceivable that a significant proportion of the 1988 hatchery production was harvested in statistical areas other than those normally designated for hatchery production (example: Tonki area, Outer Chiniak, etc.) (Table 30).

The run timing was such that the peak harvest dates were on August 9 and 10, five to six days later than the average pink harvest date (1970-1988 all years) of August 4. Because of this late timing on a projected near-record pink return and because of weaker than expected pink returns in other areas of the state, considerable concern occurred through July as Kodiak's pink return was slow to develop. Normally by July 30, 40% of the annual pink harvest has occurred; in 1988 only 26% of the harvest had occurred by that date. It was not until August 13 before the projected minimum harvest level of 12.2 million was achieved, and it was apparent that the projected point harvest estimate would be approached.

As indicated in the pre-season 1988 HARVEST STRATEGY FOR THE KODIAK MANAGEMENT AREA COMMERCIAL SALMON FISHERY (Appendix C.1), the projected large pink run was expected to provide liberal fishing opportunities to facilitate harvest requirements.

It is important to remember that the Kodiak pink salmon in-season harvest strategy adheres to the following criteria for fishing time: Directed pink salmon management begins annually on July 6 and is primarily completed by late August; it is totally completed by early September. The first two fishing periods are based solely upon projected total return strength. The third fishing period is based upon a blend of projected return and some early evaluation of actual return, e.g. harvest data, bay build-ups. The fourth and fifth fishing periods are based almost solely on actual return strength. And the sixth, seventh, eighth, and ninth periods are based solely upon actual return with major consideration given to differential production, e.g. weak appearing areas have less fishing time than stronger appearing areas.

As previously mentioned, a significant unexpected event which occurred in this year's fishery was the rarely seen change in inshore migration patterns. Examples of this occurred on the westside of Kodiak and Afognak where fish were northbound at the

capes and southbound just offshore suggesting a counter clockwise milling pattern as they progressed southward in their normal migration pattern. This may have affected the final harvest distribution of those pinks which were expected to be harvested in the S.W. Kodiak District, a major even-year pink production area. While other harvest anomalies appear to have occurred, it is difficult to speculate as to which fish were caught where when the total return is of near record proportions. Certainly the escapement levels and distribution met pre-season expectations. Escapement which was geographically disproportionate to the harvest distribution did not occur; heavy harvest areas received escapements commensurate with those harvests and vice-versa for the weaker production areas.

A conservative ex-vessel value to all permit holders for pink salmon in 1988 was 37.9 million dollars based on an average in-season grounds price of $0.70/lb (Table 22). This was approximately 40 percent of Kodiak's total salmon ex-vessel value.

Purse seine gear was the major harvester of pinks (82% of total pinks harvested); pinks comprised a major proportion (78%) of this gear type's total salmon harvest and a significant (43%) of its total ex-vessel value. Beach seine gear was a relatively minor harvester of pinks (2%); however this species comprised a major proportion (91%) of this gear type's total salmon harvest and a very significant proportion (73%) of its total ex-vessel value. Set gillnet gear was a significant harvester of pinks (15%); this species was an important contributor (28%) to this gear type's total salmon harvest and it's total ex-vessel value (28%) (Table 31).

Chum Salmon Fishery (July 6 - September 5)

The 1988 chum salmon actual harvest exceeded pre-season expectations by 426,000 fish (Table 32). This was also the second largest harvest of chum on record for the Kodiak Area (Figure 10). The westside and eastside of Kodiak Islands' returns were excellent with harvests being respectively 2.4 and 1.5 times greater than expected. Harvests in the Afognak, Alitak, and Mainland Districts were close to expectations. Chum quality appeared to be excellent, especially in the north and mid Mainland sections. Many of these chums would have been exposed to more fishing effort had not an abnormal shift in fishing effort to "hotter" fishing areas occurred in July. As mentioned earlier, the subsequent chum escapements to most early and, even to many late run major chum systems was good to excellent.

A conservative ex-vessel value to all permit holders for chum salmon in 1988 was 12.7 million dollars based on an average in-season grounds price of $1.00/lb (Table 22). This was approximately 14% of Kodiak's total salmon ex-vessel value.

Purse seine gear was the major harvester of chums (85% of total chums harvested), yet chums only provided (9%) of this gear type's total salmon harvest and 15% of its total ex-vessel value in 1988. Beach seine gear was a very minor harvester of chums (only 2%), but even though chums only represented 9% of this gear type's total salmon harvest, it did represent 23% of its total ex-vessel value. Set gillnet gear was a significant harvester of chums (13%), yet chums only represented (6%) of this gear type's total salmon harvest and only (8%) of its total ex-vessel value (Table 33).

Information on the 1988 commercial salmon season, including historical harvest statistics and harvest breakdowns by date, area, and gear type, can be found in Appendices G, H, I, J and K. Information concerning the 1988 subsistence salmon harvest can be

found in Appendix L. Miscellaneous information can be found in Appendix M.

1989 Issues and Plans

Non-Local User Groups

Concern has been expressed by both Cook Inlet industry and ADF&G over the Shelikof Straits interception of Cook Inlet bound fish by Kodiak Area fisheries. This is discussed in proposed regulation change No. 294 (Appendix B.1), which will be addressed at the March 1989 Board of Fisheries meeting. Written summaries of the nature of that interception have been presented to the Board by Kodiak Area staff (Regional Information Reports No. 4K88-6 and No. 4K88-7); oral presentations will also be given at that meeting. The results of Board action on proposal 294 could have an effect on the 1989 salmon harvest strategy for the Kodiak Management Area. Depending upon the nature of the Board action and depending upon the level of sockeye interception in 1989, the major ramifications of this issue could be more thoroughly discussed during the fall 1989 Board meetings when the Kodiak Area's regulations will be up for review.

Local User Groups

The Shelikof Straits sockeye interception issue will be closely followed by all commercial gear types because of the concern for regulatory changes in fishing patterns which may impact normal harvest opportunities for both gear types. In 1989, the fishing time during the "Intercept Period" in the "Intercept Area" is expected to be similar to that experienced in 1987 in areas where pinks are the targeted management species (i.e. Afognak) and similar to that experienced since 1987 where chums are the targeted management species (i.e. Mainland). Close monitoring of non-local sockeye interception will occur and in-season information on the

comparative nature of any 1989 interception will be available in-season to all concerned. A complete post-season summary will be available for the 1989 Board of Fisheries meeting.

The concerns expressed in the 1988 Kodiak Area Salmon Management Report to the Alaska Board of Fisheries (Regional Information Report No. 4K89-6) dealt primarily with intra-area allocation problems. Specifically, 1) Equitable management of early and late-run sockeye fisheries in the Alitak Bay District, 2) Escalation of gear conflicts between fixed and mobile gear in the N.W. Kodiak District, and 3) the degree to which differences in pre-season and post-season management strategies occur in the N.W. and S.W. Districts. Essentially all three of these concerns were alleviated in 1988 through a combination of Board action in March of 1988 and a more aggressive in-season management approach during the 1988 season which closely followed a detailed pre-season harvest strategy (Appendix C.1). Neither of the three aforementioned issues are expected to be major issues in 1989.

An annually recurring concern over the lack of adequate deterrent to illegal fishing seems to be heating up. The concern applies mostly to the procedure whereby apprehended violators are not levied punishment commensurate with the economic consequences of their illegal actions, be it loss of escapement fish or the loss of a legal opportunity for all participants to compete for surplus fish. A more expeditious and aggressive procedure for dealing with violators by the court systems has been the common complaint.

The 1989 projected salmon harvest by species and by broad geographical area is listed in Table 34. These projections are for above average harvests for all species and are presented with a reasonable degree of confidence. The accuracy of Kodiak's annual harvest projections are considered reasonably reliable in terms of relative usefulness; although improved precision of these projections is an ongoing concern. That notwithstanding, both

industry and ADF&G are optimistic about 1989 being a good salmon year for the Kodiak Management Area.

LITERATURE CITED

Barrett, B.M. 1989. North Shelikof Strait 1988 sockeye catch -- distribution, timing, and stock composition. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K88-6, Kodiak.

Malloy, L. 1988. Interception of Cook Inlet-bound sockeye in the 1988 Kodiak commercial salmon fishery. Alaska Department of Fish and Game, Division of Commercial Fisheries, Regional Information Report 4K88-7, Kodiak.

Table 1. Salmon production systems in the Kodiak Management Area, 1988.

Estimated Number of Salmon Streams per District,[a] with Species Distribution.

Management District	Number of Streams	Number of Streams with Each Species				
		Chinook	Sockeye	Coho	Pink	Chum
Afognak	89	0	15	48	89	5
N.W. Kodiak	58	0	3	22	58	23
S.W. Kodiak	11	2	2	10	11	6
Alitak	27	1	5	15	27	14
Eastside Kodiak	101	1	4	32	101	47
N.E. Kodiak	26	0	1	20	26	9
Mainland	74	0	6	27	74	46
TOTAL	386	4	36	174	386	150

[a] The total number of streams identified in this table are depicted on the 1988 Kodiak Area Salmon District Map.

Table 2. Salmon production (Potential vs. Actual) in the Kodiak Management Area, 1988[a].

	LONG TERM AVERAGE POTENTIAL SALMON PRODUCTION[b]				ACTUAL HARVEST[c]	
SPECIES	Midpoint Indexed Escapement	Return Per Spawner	Total Return	Potential Harvest	107 Yr. Period (1882-1988)	13 Yr. Period (1976-1988)
Chinook	.014	2.5	.035	.021	.002	.004
Sockeye	1.754	2.5	4.385	2.631	1.000	1.445
Coho	.150	3.0	.450	.300	.080	.168
Pink					7.700	
Odd Year	2.020	4.0	8.080	6.060		7.481
Even Year	3.602	4.0	14.408	10.806		12.585
Chum[d]	.501	3.0	1.503	1.002	.700	.929
TOTAL					9.500	
Odd Year	4.439	-	14.453	10.014		10.027
Even Year	6.021	-	20.781	14.760		15.131

[a] Figures in millions of fish.

[b] Natural Production. Table completed initially 2/15/89 and revised 10/30/90 by Kodiak management staff with review by research staff.

[c] Includes natural and supplemental production.

[d] Minimum indexed escapement goal utilized instead of midpoint indexed escapement because the entire annual chum return is vulnerable to variable bycatch rates in the targeted pink fisheries and the midpoint escapement levels cannot (realistically) be managed for on a regular basis.

Table 3. Commercial salmon buyers and processors in the Kodiak Management Area, 1988[a].

Buyers/Processors	Shorebased Processors			Floating Processors			Product	
	Kodiak City	Kodiak Borough	Other Areas	Kodiak City	Kodiak Borough	Other Areas	Canned	Frozen
Alaska Fresh Seafoods	X							X
ALCOD	X							X
All Alaskan Seafoods	X							X
Alaska Pacific Seafoods	X						X	X
Chignik Pride Fish-Chig.			X					X
Chugach Fisheries-Uganik		X					X	X
Columbia Ward-Alitak		X					X	X
Columbia Ward-Port Bailey		X					X	X
Cook Inlet Processors	X							X
East Point Seafoods (M/V MR. B)	X				X			X X
International Seafoods	X							X
John Cabot Fish-Seldovia			X					X
Kodiak King Crab, Inc.	X						X	X
Kodiak Salmon Company-Larsen Bay (M/V BRISTOL MONARCH)		X			X		X	X
Pacific Producer (M/V PACIFIC PRODUCER)					X			X
Ursins Seafoods	X							X
Western Alaska Seafoods	X							X
TOTAL: 16/19	10	4	2	0	3	0	6	18

[a] Approximately 125 tenders were utilized for transporting salmon from the fishing grounds to the processing plants.

Table 4. Estimated salmon harvest and value by gear type in the Kodiak Management Area, 1970-1988.[a]

Year	Total Catch[b]	Total Value	Average Purse Seine	Average Beach Seine	Average Set Net
1970	13,949,000	$21,658,000	$41,880	$10,470	$21,083
1971	6,378,000	4,973,000	13,397	2,919	3,015
1972	3,883,000	3,909,000	9,233	647	1,451
1973	1,001,000	2,094,000	5,075	251	852
1974	3,329,000	4,808,000	15,993	4,406	4,828
1975	3,187,000	3,831,000	13,300	5,600	3,849
1976	12,485,000	16,976,000	43,017	11,035	14,481
1977	7,977,000	21,000,000	48,382	12,434	19,351
1978	16,942,000	32,000,000	72,158	15,731	25,495
1979	12,420,000	25,000,000	48,906	18,839	23,000
1980	19,157,000	31,000,000	69,117	7,710	21,578
1981	13,094,000	33,000,000	75,257	17,312	26,231
1982	10,892,000	16,230,000	31,868	10,549	30,554
1983	7,082,000	14,530,000	32,832	5,886	19,338
1984	13,678,000	26,202,000	72,018	12,577	26,777
1985	9,898,000	20,782,000	45,303	6,451	31,296
1986	16,304,959	39,106,000	92,933	9,517	69,644
1987	7,747,000	28,113,000	71,170	12,780	38,000
1988	18,712,000	103,749,000	252,231	47,016	118,285
19 Yr. Average 1970-1988	10,427,158	$23,629,526	$55,477	$11,165	$26,269

[a] Value is an "ex-vessel value" based upon CFEC price information; it includes additional value associated with dock deliveries and post-season settlements.

[b] Includes total commercial harvest; excludes test fishery and Kitoi cost-recovery fishery harvests. These figures are in numbers of fish.

Table 5. Commercial salmon fishery (Projected vs. Actual Harvest) by species and fishery[a] in the Kodiak Management Area, 1988.

FISHERY	PROJECTED HARVEST/ACTUAL HARVEST[b] (In Millions of Fish)	
Early Run Sockeye Salmon Fisheries (6/9-7/15)		
Cape Igvak	.280	.000
Karluk	.225	.150
Ayakulik	.105	.299
Upper Station	.090	.052
Fraser	.125	.296
Minor Systems	.035	.026
Other	.000	.429
Sub-total	.860	1.252
Pink Salmon Fisheries (7/6-9/5)		
Afognak (Hatchery)	1.250	.307
Afognak (Natural)	.645	2.426
Westside Kodiak	9.206	6.521
Alitak	.753	.386
Eastside/Northend Kodiak	3.080	2.874
Mainland	.315	1.748
Sub-Total	15.250	14.262
Chum Salmon Fisheries (7/6-9/5)		
Afognak (Hatchery)	.000	.001
Afognak (Natural)	.050	.080
Westside Kodiak	.200	.484
Alitak	.100	.093
Eastside/Northend Kodiak	.250	.369
Mainland	.400	.399
Sub-Total	1.000	1.426
Late Run Sockeye Salmon Fisheries (7/16/-9/15)		
Cape Igvak	.150	.034
Karluk	.325	.236
Ayakulik	.050	.150
Upper Station	.400	.750
Fraser	-	-
Minor Systems	.015	.005
Other	.000	.271
Sub-Total	.940	1.446
Coho Fisheries (6/9-10/15)		
Afognak	.040	.079
Westside	.055	.091
Alitak	.020	.030
Eastside/Northend Kodiak	.015	.048
Mainland	.020	.055
Sub-Total	.150	.303
GRAND TOTAL (6/9-10/15)	18.204	18.689

-Continued-

Table 5. (page 2 of 2)

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[a] For both early and late run sockeye, the fishery labeled "other" refers to the 1988 estimated total Cook Inlet sockeye interception in the Kodiak Area (approximately 700,000 sockeye). This estimate was derived using data presented in Research Biologist Bruce Barrett's Regional Informational Report on Shelikof strait Sockeye Interception, 4K88-6, and using estimates made by the Kodiak Finfish Management staff of additional Cook Inlet bound sockeye harvested from portions of the Kodiak Management Area not covered by Barrett's report. This estimate was based upon a cursory review of historical Kodiak sockeye harvest data on run timing, average weights, differential production for systems both within and outside of the Kodiak Area, and of trends in fishing patterns.

[b] Does not include chinook harvest of 22,374 fish (0.022 million) or Kitoi Bay Hatchery cost recovery harvest of 296,800 fish (0.297 million).

Table 6. Commercial salmon harvest by statistical week for all gear types in the Kodiak Management Area, 1988.

GEAR	STAT WEEK	WEEK END	Chinook #	Chinook LBS	Chinook AVG.	Sockeye #	Sockeye LBS	Sockeye AVG.	Coho #	Coho LBS	Coho AVG.	Pink #	Pink LBS	Pink AVG.	Chum #	Chum LBS	Chum AVG.
ALL GEAR																	
	23	06/04	0	0	0.0	72	355	4.9	0	0	0.0	0	0	0.0	0	0	0.0
	24	06/11	2,088	29,233	14.0	126,398	612,786	4.8	69	468	6.8	378	1,265	3.3	3,799	34,345	9.0
	25	06/18	1,929	35,870	18.6	118,114	554,973	4.7	8	73	9.1	184	565	3.1	6,450	58,685	9.1
	26	06/25	385	3,037	7.9	18,585	91,443	4.9	7	44	6.3	1,826	6,675	3.7	10,924	102,260	9.4
	27	07/02	1,358	16,891	12.4	173,926	851,921	4.9	140	1,130	8.1	19,322	68,924	3.6	52,122	493,342	9.5
	28	07/09	1,310	17,080	13.0	230,832	1,297,960	5.6	310	2,163	7.0	89,639	349,339	3.9	140,565	1,324,880	9.4
	29	07/16	5,676	52,771	9.3	633,578	4,314,889	6.8	8,369	58,397	7.0	364,268	1,365,254	3.7	170,648	1,521,303	8.9
	30	07/23	1,845	26,142	14.2	356,341	2,273,534	6.4	12,939	94,950	7.3	883,915	3,274,604	3.7	169,450	1,528,639	9.0
	31	07/30	3,738	47,976	12.8	269,359	1,501,072	5.6	32,264	232,929	7.2	2,551,050	9,487,280	3.7	230,096	2,003,111	8.7
	32	08/06	2,236	36,588	16.4	199,861	999,075	5.0	25,221	205,337	8.1	3,400,636	12,619,191	3.7	238,511	2,155,936	9.0
	33	08/13	1,168	19,401	16.6	174,421	902,165	5.2	59,021	486,270	8.2	4,119,405	15,753,359	3.8	200,767	1,757,651	8.8
	34	08/20	502	8,492	16.9	205,339	1,049,375	5.1	93,421	811,676	8.7	2,635,034	10,119,522	3.8	116,509	986,953	8.5
	35	08/27	69	1,176	17.0	51,289	268,820	5.2	23,332	206,689	8.9	404,759	1,615,569	4.0	78,339	658,172	8.4
	36	09/03	48	690	14.4	69,397	372,950	5.4	25,760	250,175	9.7	74,857	291,727	3.9	4,380	32,840	7.5
	37	09/10	19	291	15.3	54,569	290,045	5.3	15,844	153,211	9.7	11,943	44,843	3.8	3,352	25,662	7.7
	38	09/17	3	61	20.3	14,168	77,988	5.5	3,941	38,622	9.8	1,474	5,467	3.7	463	3,359	7.3
	39	09/24	0	0	0.0	1,590	8,644	5.4	1,649	17,229	10.4	161	591	3.7	21	175	8.3
	40	10/01	0	0	0.0	798	3,178	4.0	983	8,981	9.1	187	683	3.7	14	130	9.3
	41	10/08	0	0	0.0	0	0	0.0	20	150	7.5	0	0	0.0	0	0	0.0
TOTAL			22,374	295,699	13.2	2,698,637	15,471,173	5.7	303,298	2,568,494	8.5	14,559,038	55,004,858	3.8	1,426,410	12,687,443	8.9
PURSE SEINE																	
	24	06/11	1,944	26,995	13.9	83,574	402,224	4.8	18	123	6.8	358	1,193	3.3	2,813	25,88	9.2
	25	06/18	1,856	34,712	18.7	79,224	365,587	4.6	2	22	11.0	136	389	2.9	4,160	39,026	9.4
	26	06/25	365	2,834	7.8	14,519	69,544	4.8	5	33	6.6	1,341	4,706	3.5	9,091	86,866	9.6
	27	07/02	1,241	15,111	12.2	102,131	492,460	4.8	95	782	8.2	14,844	51,512	3.5	41,343	401,002	9.7
	28	07/09	1,264	16,120	12.8	159,513	949,686	6.0	238	1,657	7.0	62,826	243,127	3.9	122,932	1,175,906	9.6
	29	07/16	5,540	50,102	9.0	556,787	3,863,057	6.9	8,068	56,243	7.0	268,892	984,657	3.7	143,321	1,288,585	9.0
	30	07/23	1,681	23,394	13.9	283,945	1,847,003	6.5	11,857	86,631	7.3	649,802	2,355,502	3.6	140,949	1,290,082	9.2
	31	07/30	3,599	45,243	12.6	176,345	989,279	5.6	30,440	217,980	7.2	2,128,782	7,857,042	3.7	201,051	1,764,563	8.8
	32	08/06	2,060	33,167	16.1	112,836	539,841	4.8	23,300	189,078	8.1	2,872,771	10,625,495	3.7	210,819	1,929,001	9.2
	33	08/13	1,079	17,882	16.6	67,570	330,022	4.9	53,116	434,249	8.2	3,341,678	12,729,040	3.8	169,016	1,501,213	8.9
	34	08/20	435	7,530	17.3	119,597	604,394	5.1	82,528	711,150	8.6	2,220,329	8,451,273	3.8	96,832	833,151	8.6
	35	08/27	59	1,054	17.9	17,123	87,375	5.1	18,136	156,857	8.6	335,802	1,333,357	4.0	73,702	623,076	8.5
	36	09/03	41	531	13.0	28,990	150,261	5.2	20,592	200,801	9.8	43,005	168,889	3.9	2,078	16,265	7.8
	37	09/10	3	76	25.3	31,877	162,379	5.1	12,490	120,930	9.7	6,909	25,493	3.7	2,174	17,278	7.9
	38	09/17	0	0	0.0	4,185	22,357	5.3	2,959	29,645	10.0	921	3,374	3.7	97	803	8.3
	39	09/24	0	0	0.0	197	934	4.7	1,603	16,827	10.5	149	544	3.7	14	122	8.7
	40	10/01	0	0	0.0	740	2,877	3.9	979	8,948	9.1	185	675	3.6	13	121	9.3
	41	10/08	0	0	0.0	0	0	0.0	20	150	7.5	0	0	0.0	0	0	0.0
TOTAL			21,167	274,751	13.0	1,839,153	10,879,280	5.9	266,446	2,232,106	8.4	11,948,730	44,836,268	3.8	1,220,405	10,992,947	9.0

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Table 6. (page 2 of 3)

GEAR	STAT WEEK	WEEK END	Chinook #	Chinook LBS	Chinook AVG.	Sockeye #	Sockeye LBS	Sockeye AVG.	Coho #	Coho LBS	Coho AVG.	Pink #	Pink LBS	Pink AVG.	Chum #	Chum LBS	Chum AVG.
BEACH SEINE																	
	24	06/11	0	0	0.0	32	220	6.9	0	0	0.0	0	0	0.0	0	0	0.0
	25	06/18	2	39	19.5	171	1,023	6.0	0	0	0.0	1	3	3.0	13	96	7.4
	26	06/25	0	0	0.0	378	2,400	6.3	0	0	0.0	53	197	3.7	98	873	8.9
	27	07/02	4	63	15.8	179	1,038	5.8	0	0	0.0	342	869	2.5	95	921	9.7
	28	07/09	1	25	25.0	251	1,292	5.1	0	0	0.0	3,079	11,609	3.8	1,135	9,930	8.7
	29	07/16	43	655	15.2	420	2,387	5.7	0	0	0.0	9,511	35,703	3.8	2,517	24,321	9.7
	30	07/23	4	101	25.3	124	689	5.6	8	60	7.5	17,029	65,341	3.8	2,603	21,948	8.4
	31	07/30	6	99	16.5	180	1,052	5.8	10	84	8.4	43,862	166,295	3.8	2,681	23,110	8.6
	32	08/06	13	293	22.5	37	180	4.9	12	85	7.1	43,601	160,487	3.7	5,050	45,935	9.1
	33	08/13	1	22	22.0	94	439	4.7	187	1,569	8.4	75,409	288,034	3.8	6,372	58,171	9.1
	34	08/20	1	19	19.0	186	999	5.4	349	2,580	7.4	24,164	91,925	3.8	1,041	8,741	8.4
	35	08/27	0	0	0.0	4	24	6.0	135	1,204	8.9	14,415	59,915	4.2	184	1,579	8.6
	36	09/03	0	0	0.0	18	64	3.6	144	1,417	9.8	2,792	10,709	3.8	16	131	8.2
	38	09/17	0	0	0.0	1	3	3.0	15	143	9.5	0	0	0.0	0	0	0.0
TOTAL			75	1,316	17.5	2,075	11,810	5.7	860	7,142	8.3	234,258	891,087	3.8	21,805	195,756	9.0
SET GILLNET																	
	24	06/11	144	2,238	15.5	42,748	210,140	4.9	51	345	6.8	20	72	3.6	985	8,445	8.6
	25	06/18	71	1,119	15.8	38,528	187,494	4.9	6	51	8.5	47	173	3.7	2,276	19,548	8.6
	26	06/25	20	203	10.2	3,437	18,349	5.3	2	11	5.5	432	1,772	4.1	1,728	14,457	8.4
	27	07/02	113	1,717	15.2	71,575	358,216	5.0	45	348	7.7	4,136	16,543	4.0	10,683	91,409	8.6
	28	07/09	45	935	20.8	71,068	346,982	4.9	72	506	7.0	23,734	94,603	4.0	16,498	139,044	8.4
	29	07/16	93	2,014	21.7	76,371	449,445	5.9	301	2,154	7.2	85,865	344,894	4.0	24,810	208,397	8.4
	30	07/23	160	2,647	16.5	72,272	425,842	5.9	1,074	8,259	7.7	217,084	853,761	3.9	25,898	216,609	8.4
	31	07/30	133	2,634	19.8	92,834	510,741	5.5	1,814	14,865	8.2	359,573	1,405,559	3.9	26,364	215,438	8.2
	32	08/06	163	3,128	19.2	86,972	458,990	5.3	1,897	16,102	8.5	340,800	1,328,261	3.9	22,642	181,000	8.0
	33	08/13	88	1,497	17.0	106,707	571,504	5.4	5,703	50,352	8.8	577,079	2,284,619	4.0	25,379	198,267	7.8
	34	08/20	66	943	14.3	85,556	443,982	5.2	10,544	97,946	9.3	390,541	1,576,324	4.0	18,636	145,061	7.8
	35	08/27	10	122	12.2	34,162	181,421	5.3	5,061	48,628	9.6	54,542	222,297	4.1	4,453	33,517	7.5
	36	09/03	7	159	22.7	40,389	222,625	5.5	5,020	47,923	9.5	19,913	77,367	3.9	2,286	16,444	7.2
	37	09/10	16	215	13.4	22,692	127,666	5.6	3,354	32,281	9.6	5,034	19,350	3.8	1,178	8,384	7.1
	38	09/17	3	61	20.3	9,982	55,628	5.6	967	8,834	9.1	553	2,093	3.8	366	2,556	7.0
	39	09/24	0	0	0.0	1,393	7,710	5.5	46	402	8.7	12	47	3.9	7	53	7.6
	40	10/01	0	0	0.0	58	301	5.2	4	33	8.3	2	8	4.0	1	9	9.0
TOTAL			1,132	19,632	17.3	856,744	4,577,036	5.3	35,961	329,040	9.1	2,079,367	8,227,743	4.0	184,190	1,498,638	8.1
HATCHERY																	
	31	07/30	0	0	0.0	0	0	0.0	0	0	0.0	18,833	58,384	3.1	0	0	0.0
	32	08/06	0	0	0.0	16	64	4.0	12	72	6.0	143,464	504,948	3.5	0	0	0.0
	33	08/13	0	0	0.0	50	200	4.0	15	100	6.7	125,239	451,666	3.6	0	0	0.0
	36	09/03	0	0	0.0	0	0	0.0	4	34	8.5	9,147	34,762	3.8	0	0	0.0
TOTAL			0	0	0.0	66	264	4.0	31	206	6.6	296,683	1,049,760	3.5	0	0	0.0

-Continued-

Table 6. (page 3 of 3)

GEAR	STAT WEEK	WEEK END	Chinook #	Chinook LBS	Chinook AVG.	Sockeye #	Sockeye LBS	Sockeye AVG.	Coho #	Coho LBS	Coho AVG.	Pink #	Pink LBS	Pink AVG.	Chum #	Chum LBS	Chum AVG.
TEST FISH																	
	23	06/04	0	0	0.0	72	355	4.9	0	0	0.0	0	0	0.0	0	0	0.0
	24	06/11	0	0	0.0	44	202	4.6	0	0	0.0	0	0	0.0	1	13	13.0
	25	06/18	0	0	0.0	191	869	4.5	0	0	0.0	0	0	0.0	1	15	15.0
	26	06/25	0	0	0.0	251	1,150	4.6	0	0	0.0	0	0	0.0	7	64	9.1
	27	07/02	0	0	0.0	41	207	5.0	0	0	0.0	0	0	0.0	1	10	10.0
TOTAL			0	0	0.0	599	2,783	4.6	0	0	0.0	0	0	0.0	10	102	10.2

Table 7. Historical salmon harvest by species and year in the Kodiak Management Area, 1882-1988[a].

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1882	-	59,000	-	-	-	59,000
1883	-	189,000	-	-	-	189,000
1884	-	282,000	-	-	-	282,000
1885	-	469,000	-	-	-	469,000
1886	-	646,000	-	-	-	646,000
1887	-	1,005,000	-	-	-	1,005,000
1888	-	2,781,000	-	-	-	2,781,000
1889	-	3,755,000	-	-	-	3,755,000
1890	-	3,593,000	-	-	-	3,593,000
1891	-	3,846,000	-	-	-	3,846,000
1892	-	3,126,000	-	-	-	3,126,000
1893	-	3,245,000	-	-	-	3,245,000
1894	-	3,830,000	-	-	-	3,830,000
1895	-	2,247,000	8,000	-	-	2,255,000
1896	-	3,329,000	-	-	-	3,329,000
1897	-	2,786,000	2,000	-	-	2,788,000
1898	-	2,033,000	19,000	-	-	2,052,000
1899	1,000	1,935,000	32,000	-	-	1,968,000
1900	5,000	3,450,000	32,000	-	-	3,487,000
1901	4,000	4,826,000	-	2,000	-	4,832,000
1902	3,000	3,868,000	35,000	-	-	3,906,000
1903	1,000	1,826,000	120,000	10,000	-	1,957,000
1904	3,000	2,875,000	103,000	5,000	-	2,986,000
1905	2,000	2,142,000	87,000	-	-	2,231,000
1906	4,000	3,980,000	24,000	-	-	4,008,000
1907	4,000	4,232,000	38,000	-	-	4,274,000
1908	3,000	2,488,000	74,000	286,000	-	2,851,000
1909	4,000	1,915,000	52,000	154,000	-	2,125,000
1910	2,000	1,955,000	44,000	215,000	-	2,216,000
1911	1,000	2,686,000	22,000	230,000	6,000	2,945,000
1912	1,000	2,246,000	17,000	547,000	25,000	2,836,000
1913	1,000	1,663,000	28,000	590,000	4,000	2,286,000
1914	1,000	1,255,000	32,000	1,726,000	13,000	3,027,000
1915	1,000	1,664,000	52,000	252,000	20,000	1,989,000
1916	1,000	3,373,000	50,000	3,182,000	29,000	6,635,000
1917	1,000	3,646,000	30,000	225,000	16,000	3,918,000
1918	2,000	1,894,000	78,000	2,467,000	82,000	4,523,000
1919	2,000	1,619,000	104,000	283,000	60,000	2,068,000
1920	2,000	1,958,000	89,000	1,977,000	55,000	4,081,000
1921	1,000	2,858,000	46,000	68,000	25,000	2,998,000
1922	1,000	1,097,000	120,000	2,766,000	224,000	4,208,000
1923	2,000	1,090,000	78,000	929,000	39,000	2,138,000
1924	1,000	1,408,000	121,000	5,435,000	118,000	7,083,000
1925	2,000	1,693,000	93,000	2,674,000	212,000	4,674,000
1926	1,000	3,015,000	174,000	4,607,000	325,000	8,122,000
1927	4,000	1,155,000	152,000	5,297,000	418,000	7,026,000
1928	3,000	1,592,000	291,000	1,535,000	726,000	4,147,000
1929	3,000	712,000	144,000	6,108,000	1,058,000	8,025,000
1930	5,000	466,000	229,000	1,651,000	419,000	2,770,000
1931	2,000	1,183,000	170,000	6,840,000	184,000	8,379,000
1932	2,000	1,058,000	52,000	4,720,000	237,000	6,069,000
1933	1,000	1,428,000	91,000	6,574,000	537,000	8,631,000
1934	3,000	1,829,000	86,000	7,642,000	662,000	10,222,000

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Table 7. (page 2 of 3)

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1935	2,000	1,614,000	63,000	10,781,000	382,000	12,842,000
1936	5,000	2,658,000	163,000	5,648,000	329,000	8,803,000
1937	2,000	1,882,000	134,000	16,788,000	346,000	19,152,000
1938	3,000	1,966,000	133,000	8,398,000	640,000	11,140,000
1939	4,000	1,786,000	64,000	11,741,000	641,000	14,236,000
1940	3,000	1,318,000	163,000	9,997,000	674,000	12,155,000
1941	5,000	1,730,000	208,000	7,601,000	445,000	9,989,000
1942	3,000	1,281,000	106,000	6,093,000	565,000	8,048,000
1943	2,000	1,991,000	61,000	12,480,000	454,000	14,988,000
1944	2,000	1,818,000	45,000	4,956,000	507,000	7,328,000
1945	4,000	2,041,000	79,000	9,045,000	559,000	11,728,000
1946	1,000	839,000	71,000	9,546,000	298,000	10,755,000
1947	1,000	994,000	72,000	8,857,000	295,000	10,219,000
1948	1,000	1,260,000	32,000	5,958,000	331,000	7,582,000
1949	1,000	892,000	54,000	4,928,000	700,000	6,575,000
1950	2,000	921,000	41,000	5,305,000	685,000	6,954,000
1951	2,000	470,000	48,000	2,006,000	422,000	2,948,000
1952	1,000	631,000	36,000	4,554,000	984,000	6,206,000
1953	3,000	392,000	39,000	4,948,000	490,000	5,872,000
1954	1,000	329,000	56,000	8,325,000	1,140,000	9,851,000
1955	2,000	164,000	35,000	10,794,000	480,000	11,475,000
1956	1,000	306,000	54,000	3,349,000	660,000	4,370,000
1957	1,000	234,000	35,000	4,691,000	1,152,000	6,113,000
1958	2,000	288,000	21,000	4,039,000	931,000	5,281,000
1959	2,000	330,000	15,000	1,800,000	734,000	2,881,000
1960	2,000	362,000	54,000	6,685,000	1,133,000	8,236,000
1961	1,000	408,000	29,000	3,296,000	519,000	4,253,000
1962	1,000	785,000	54,000	14,189,000	795,000	15,824,000
1963	-	407,000	57,000	5,480,000	305,000	6,249,000
1964	1,000	478,000	36,000	11,862,000	932,000	13,309,000
1965	1,000	346,000	27,000	2,887,000	431,000	3,692,000
1966	1,000	632,000	68,000	10,756,000	763,000	12,220,000
1967	1,000	284,000	10,000	188,000	221,000	704,000
1968	2,000	760,000	56,000	8,761,000	750,000	10,329,000
1969	2,000	604,000	35,000	12,493,000	537,000	13,671,000
1970	1,000	917,000	66,000	12,045,000	919,000	13,949,000
1971	1,000	478,000	23,000	4,333,000	1,541,000	6,376,000
1972	1,000	222,000	14,000	2,486,000	1,165,000	3,888,000
1973	1,000	167,000	4,000	512,000	318,000	1,002,000
1974	1,000	409,000	14,000	2,635,000	248,000	3,307,000
1975	-	137,000	25,000	2,945,000	85,000	3,192,000
1976	1,000	641,000	24,000	11,078,000	740,000	12,484,000
1977	1,000	623,000	28,000	6,252,000	1,072,000	7,976,000
1978	3,000	1,072,000	49,000	15,004,000	814,000	16,942,000
1979	2,000	632,000	141,000	11,287,000	358,000	12,420,000
1980	1,000	651,000	139,000	17,290,000	1,076,000	19,157,000
1981	1,000	1,289,000	122,000	10,337,000	1,345,000	13,094,000
1982	1,000	1,205,000	344,000	8,076,000	1,266,000	10,892,000
1983	4,000	1,232,000	158,000	4,603,000	1,085,000	7,082,000
1984	5,000	1,951,000	230,000	10,884,000	649,000	13,719,000
1985	5,000	1,843,000	284,000	7,335,000	431,000	9,898,000
1986	4,000	3,155,000	168,000	11,504,000	1,126,000	15,957,000

-Continued

Table 7. (page 3 of 3)

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1987	5,000	1,793,000	192,000	5,073,000	682,000	7,745,000
1988	22,000	2,699,000	303,000	14,559,000	1,426,000	19,009,000
			Average			
All Years Total	208,000	169,618,000	7,601,000	486,460,000	43,070,000	706,957,000
Overall Average (1882-1988)	2,000	1,585,000	71,000	4,546,000	403,000	6,607,000
Recent Average (1984-1988)	8,000	2,288,000	235,000	9,871,000	863,000	13,265,000
Odd Year (1983-1987)				5,670,000		
Even Year (1984-1988)				12,316,000		

[a] DATA SOURCE: For the period 1882-1947, the harvest data was derived from "casepack" information supplied by commercial buyers and processors. For the period 1948-present, the harvest data was derived from "fish ticket" information summarized by ADF&G.

Table 8. Summary of gear participation in the Kodiak Management Area, amount potentially fishable vs. amount actually fished, 1988.

		1988 Limited Entry Permits[a,b]	
		Fishable	Fished
Purse Seine	Resident	287	-
	Non-Resident	93	-
	Sub-total	380	323
Beach Seine	Resident	30	-
	Non-Resident	2	-
	Sub-total	32	21
Set Gillnet	Resident	149	-
	Non-Resident	39	-
	Sub-total	188	-
Area Total	Resident	466	-
	Non-Resident	134	-
	Total	600	524

[a] Includes 5 interim purse seine permits and 1 interim beach seine permit.

[b] Excludes 6 unpaid purse seine permits and 1 unpaid beach seine permit.

Table 9. Indexed total escapement goals by species in the Kodiak Management Area, 1988.[a]

	Minimum	Midpoint	Desired
Chinook	0.010	0.014	0.018
Sockeye	1.356	1.754	2.135
Coho	0.100	0.150	0.200
Pink - Odd	1.010	2.020	3.030
Pink - Even	2.401	3.602	6.003
Chum	0.501	1.029	1.530
Total - Odd	2.977	4.967	6.913
Total - Even	4.368	6.549	12.716

[a] DATA SOURCE: Compiled by the Kodiak Finfish Staff.

Table 10. Historical indexed salmon escapements by species in the Kodiak Management Area, 1962-1988.[a]

Year	Chinook	Sockeye	Coho	Pink	Chum
1962	-	922,500	-	4,600,000	297,900
1963	-	502,227	-	1,026,075	75,520
1964	-	600,346	-	3,360,000	261,429
1965	-	561,980	-	772,874	67,156
1966	-	652,578	-	2,100,000	143,700
1967	-	720,683	-	698,710	136,079
1968	703	645,612	-	2,800,000	121,000
1969	7,752	592,020	-	1,581,335	77,285
1970	3,900	573,603	-	3,392,577	123,150
1971	4,524	456,197	-	1,070,173	249,327
1972	3,049	605,491	-	1,053,391	335,115
1973	4,762	543,111	-	604,592	258,044
1974	1,622	995,925	-	2,041,099	86,383
1975	3,059	704,801	-	1,100,555	156,761
1976	8,411	1,075,226	-	3,105,320	312,914
1977	13,824	1,269,374	59,095	2,212,488	742,384
1978	14,677	1,000,353	37,479	5,006,273	482,956
1979	14,441	1,410,800	94,000	3,067,647	607,430
1980	5,850	1,831,748	28,000	6,492,822	830,070
1981	15,720	1,391,593	59,000	3,188,869	741,981
1982	10,773	1,603,692	86,000	5,370,049	1,023,923
1983	27,445	1,300,506	104,000	2,089,704	824,954
1984	14,429	1,467,780	123,000	4,512,124	682,936
1985	13,876	2,574,539	191,417	3,168,197	727,883
1986	11,046	2,001,279	170,000	4,068,615	655,817
1987	23,744	1,551,543	153,000	2,978,510	641,579
1988[b]	35,000	1,650,000	105,000	4,400,000	720,000
Total	238,607	29,205,507	1,209,991	75,861,999	11,383,676
Overall Average	11,362	1,081,685	100,833	2,809,704	421,618
Recent Average (1984-1988)	19,619	1,849,028	148,483	3,825,489	685,643
Odd Year Average (1983-1987)				2,745,470	
Even Year Average (1984-1988)				4,326,913	

[a] Indexed escapement by species represents summations of peak abundance estimates for the set of specific streams investigated each year. For all species except chums this will include totals summed from both actual weir counts and from aerial/foot estimates. For the data set shown, errors associated with this type of compilation do not detract from depicted trends.

[b] Preliminary as of 11/28/88.

Table 11. Escapement summary for systems with fish weirs in the Kodiak Management Area, 1988.[a,b]

Weir Location	Dates		Salmon Species Enumerated					
	Installed	Removed	Chinook	Sockeye	Coho	Pink	Chum	Total
1. Karluk	5/25	9/17	13,337	578,816[c]	12,083[c]	711,676[c]	108	1,316,020
2. Ayakulik	5/25	9/2	21,370	291,774[c]	19,476[c]	397,409[c]	184	730,213
3. Dog Salmon	6/2	9/10	303	241,970[d]	3,543[c]	59,489[c]	30,680	335,985
4. Fraser Lake	6/20	8/17	212[d]	246,217[c]	0	0	6[d]	246,435
5. Upper Station	5/20	9/12	1	306,560[c]	3,813[c]	894	3	311,271
6. Akalura	5/21	9/19	1	38,618[c]	6,115	28,010	0	72,744
7. Silver Salmon	8/24	9/21	0	0	2,263[c]	75	0	2,338
8. Saltery	6/16	9/12	12	25,654[c]	4,702	7,645[c]	28	38,041
9. Buskin	5/2	9/24	1	12,144[c]	6,782[c]	203,648[c]	84	222,659
10. Litnik	5/20	9/8	2	39,012[c]	9,772[c]	148,206	11	197,003
11. Thorsheim	6/2	7/12	0	4,217[c]	0	0	0	4,217
12. Paul's Bay	5/30	9/3	0	22,794[c]	5,563[c]	434	3	28,794
13. Discoverer	8/7	9/4	0	26	2,354[c]	56,475[c]	0	58,855
15. Carry-Bear	8/13	9/6	0	0	967[c]	1,241	0	2,208
16. Big Bay	8/14	10/7	0	0	2,772[c]	669	0	3,441
TOTAL			35,027	1,565,832	81,178	1,615,929	31,101	3,329,067

[a] Escapement figures are total escapement figures that include actual total counts of fish passed through the weir plus estimates of fish that spawned below the weir.

[b] This weir escapement data represents the following proportion of the 1988 total indexed escapement derived from aerial surveys, foot surveys and weir counts combined: Chinook 99%, Sockeye 95%, Coho 85%, Pink 36%, Chum 5%.

[c] Primary Management Species.

[d] Numbers not used in species total.

Table 12. Summary of fish weir dates of operation in the Kodiak Management Area, 1980-1988.[a]

	1980		1981		1982		1983		1984		1985		1986		1987		1988	
	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out	In	Out
Karluk	5/27	9/12	5/20	9/22	5/20	9/12	5/15	9/25	5/22	9/26	5/23	9/26	5/21	10/2	5/20	9/28	5/25	9/17
Ayakulik	6/17	8/15	5/19	8/11	6/1	8/18	5/22	8/25	5/21	8/24	6/3	9/8	5/15	8/27	5/25	9/7	5/25	9/2
Up. Station	6/5	9/6	5/28	9/10	6/5	9/8	5/31	9/15	5/21	9/18	6/6	9/14	6/16	9/14	5/27	9/16	5/20	9/12
Dog Salmon	-	-	-	-	-	-	5/27	9/10	5/28	8/24	6/16	9/14	6/6	9/6	6/3	9/11	6/2	9/10
Fraser	6/9	8/15	5/27	8/16	6/7	8/15	6/9	8/14	6/13	8/14	6/23	8/20	6/21	8/19	6/15	8/16	6/20	8/17
Akalura	-	-	-	-	-	-	-	-	-	-	-	-	7/31	9/16	5/19	9/20	5/21	9/19
Silver Salmon	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8/24	-
Horse Marine	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Saltery	-	-	-	-	-	-	-	-	-	-	8/14	9/26	6/25	9/12	6/15	9/28	6/16	9/12
Buskin	-	-	-	-	-	-	-	-	-	-	4/21	10/26	5/18	10/2	4/20	10/19	5/2	9/24
Litnik	6/1	8/31	5/26	8/27	5/27	8/26	5/28	8/11	5/23	9/21	5/27	9/29	5/19	9/29	5/14	9/24	5/20	9/8
Thorsheim	-	-	-	-	-	-	-	-	-	-	-	-	6/16	7/20	5/28	6/23	6/2	8/20
	-	-	-	-	-	-	-	-	-	-	-	-	8/8	9/10	-	-	-	-
Pauls	6/8	7/17	6/7	7/12	6/7	7/15	6/11	9/10	5/26	8/31	6/6	9/12	6/10	7/18	5/29	9/11	5/30	9/3
	-	-	-	-	-	-	-	-	-	-	-	-	8/8	9/2	-	-	-	-
Perenosa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8/12	9/19	8/7	9/4
Whitey's Hole	-	-	-	-	-	-	-	-	-	-	-	-	9/2	9/20	9/10	9/23	8/9	9/5
Carry Bear	-	-	-	-	-	-	-	-	-	-	-	-	9/1	9/21	9/6	9/24	8/3	9/6
Big Bay	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8/14	10/7

[a]Dates taken from weekly weir reports.

Table 13. Sockeye salmon escapement goals for fish weir systems in the Kodiak Management Area, 1988.[a]

WEIR SITE		EARLY-RUN (MAY 25 TO SEE BELOW)	LATE-RUN (JULY 16 TO SEE BELOW)
KARLUK	Min.	250,000 (July 15)	310,000 (Sept. 30)
	Des.	350,000	550,000
AYAKULIK	Min.	160,000 (July 15)	40,000 (Sept. 15)
	Des.	220,000	80,000
DOG SALMON	Min.	120,000 (July 15)	20,000 (July 25)
	Des.	160,000	40,000
UPPER STATION	Min.	50,000 (July 15)	150,000 (Sept. 15)
	Des.	75,000	200,000
AKALURA	Min.	10,000 (July 15)	30,000 (Sept. 30)
	Des.	15,000	45,000
SALTERY	Min.	20,000 (July 25)	-
	Des.	40,000	
BUSKIN	Min.	10,000 (July 25)	-
	Des.	15,000	
LITNIK	Min.	40,000 (July 25)	-
	Des.	60,000	
THORSHEIM	Min.	5,000 (July 25)	-
	Des.	10,000	
PAULS	Min.	20,000 (July 25)	-
	Des.	40,000	

[a] This table reflects minimum (min.) and desired (des.) biological escapement goals by run-segment. Escapement goals for these systems have undergone several modifications through the years of Federal and State management as additional knowledge of escapement requirements for a particular system was accumulated. However, for the most part the goals shown above have been utilized for management purposes since at least statehood; the Fraser system (Dog Salmon weir) is an exception in that this man-made run has undergone two significant changes in escapement goals. No major adjustments to all of the goals shown above are expected in the future.

Table 14. Weir escapement counts for major sockeye salmon systems in the Kodiak Management Area, 1960-1988.

Year	Karluk[a]	Ayakulik[b]	Fraser[c]	Upper Station[d]
1960	348,693	34,546	440	45,193
1961	296,636	205,493	273	73,884
1962	589,685	278,954	1,290	39,531
1963	405.470	63,563	11,839	30,270
1964	484,075	36,342	9,989	37,249
1965	350,831	76,456	9,174	22,603
1966	455,112	66,057	16,456	44,931
1967	372,464	227,089	21,834	88,980
1968	344,940	220,850	16,707	40,531
1969	318,866	71,160	13,981	95,371
1970	313,552	28,395	24,039	55,001
1971	142,265	109,199	55,366	104,809
1972	210,087	113,733	65,777	96,736
1973	252,726	119,993	56,255	87,633
1974	340,565	181,631	82,609	285,665
1975	378,828	94,517	64,199	81,973
1976	523,496	219,867	119,321	62,905
1977	552,248	306,982	139,548	77,565
1978	360,935	132,864	142,281	114,909
1979	513,137	223,070	126,762	174,557
1980	146,622	773,597	405,535	110,019
1981	222,706	279,200	377,716	181,578
1982	164,407	169,562	437,474	470,732
1983	436,145	171,415	166,655	289,250
1984	420,268	283,215	53,524	319,226
1985	995,948	388,759	506,336	435,817
1986	887,171	318,135	136,553	466,385
1987	766,251	261,913	48,956	232,195
1988	578,816	291,774	246,217	306,560

[a] Karluk weir location: 1960-1976 Karluk Lake; 1977 to present Karluk Lagoon.
[b] Red River weir location: 1960-1969 Red Lake; 1970 to present Ayakulik Lagoon.
[c] Fraser counts from fishpass at falls until 1983. New weirs below forks near stream terminus 1983 to present.
[d] Upper Station weir location: 1960-1968 Upper Station Lagoon; 1969 to present at outlet of Upper Station Lake.

Table 15. Sockeye salmon escapement goals for all sockeye systems in the Kodiak Management Area, 1988.[a]

System Name	System No.	Run[b] Timing	Escapement Goals Minimum	Midpoint	Desired	Basis for Goal	Escapement Assessment	Method
Akalura*	252-342	Early	10	13	15			
		Late	30	37	45			
		Total	40	50	60	c,d	Weir	e
Ayakulik*	256-201	Early	160	190	220			
		Late	40	60	80			
		Total	200	250	300	c,d	Weir	e
Barabara Cove	259-363	Early	1	3	5	c,d	Aerial	f
Bear Lake	262-655	Early	1	3	5	d	Aerial	4
Big Bay	251-601	Early	1	3	5	d	Aerial Skiff	g h
Buskin*	257-211	Early	10	13	15	c,d	Weir	e
Horse Marine	257-402	Early	5	8	10	c,d	Aerial	f,g
Fraser*	257-401	Early	120	140	160			
		Late	20	30	40			
		Total	140	170	200	c,i	Weir (Dog Salmon Weir)	e
Kaflia	262-301	Early	15	20	25	c,d	Aerial	f
Kaguyak	258-706	Early	< 1	1	1	d	Aerial	f
Kanatak	262-802	Early	1	3	5	d	Aerial	f
Karluk*	255-101	Early	250	300	350			
		Late	310	425	550			
		Total	560	725	900	c,d	Weir	e
Kuliuk	262-351	Early	1	3	5	c,d	Aerial	f
Litnik*	252-342	Early	40	50	60	c,d	Weir	e
Little Afognak	252-319	Early	1	3	5	c,d	Aerial Skiff	g h
Little Danger	252-331	Early	< 1	1	1	d	Foot	j
Little Kitoi	252-323	Early	< 1	1	1	c,h	Aerial Foot	g j
Little River	253-116	Early	15	20	25	c,h	Aerial	f
Long Lagoon	252-301	Early	1	3	5	c	Aerial Skiff	f h

-Continued-

Table 15. (page 2 of 3)

System Name	No.	Run[b] Timing	Escapement Goals Minimum	Midpoint	Desired	Basis for Goal	Escapement Assessment	Method
Malina	251-105	Early	10	13	15	c,h	Aerial	f
Matfay	257-704	Early	< 1	1	1	c	Aerial Skiff	f h
Miam	259-412	Early	1	3	5	c,h	Aerial	f
Ocean Beach	258-401	Early	5	8	10	c,h	Aerial Foot	f h
Old Red River	256-202	Early	< 1	1	1	c	Aerial	h
Paramanof	251-403	Early	< 1	1	1	c	Foot	h
Pasagahsk	259-411	Early	1	3	5	c,h	Aerial Foot	f j
Pauls Lake*	251-831	Early	20	30	40	c,h	Weir	e
		Late	30	37	45			
		Total	40	50	60	c,d	Weir	e
Perenosa	251-825	Early	5	8	10	c,d	Aerial Foot	f h
Pivot Point	258-212	Early	< 1	1	1	c	Skiff	h
Red Fox	251-505	Early	< 1	1	1	c	Foot	j
Russian Harbor	258-901	Early	< 1	1	1	c	Aerial	f
Saltery*	251-101	Early	20	30	40	c,h	Weir	e
Selief	251-101	Early	1	3	5	c,h	Aerial Foot	f h
Silver Salmon	257-303	Late	1	3	5	c,h	Aerial	f
Swikshak	262-151	Early	15	20	25	c	Aerial	f
Slough Creek	262-105	Early	< 1	1	1	c	Aerial	h
Thorsheim*	251-302	Early	5	8	10	c,d	Weir Aerial Skiff	e f h
Uganik River	252-122	Early	40	50	60	c,d	Aerial	f
Upper Station*	257-304	Early	50	63	75			
		Late	150	175	200			
		Total	200	238	275	c,d	Weir	e

-Continued-

Table 15. (page 3 of 3)

System Name	No.	Run[b] Timing	Escapement Goals Minimum	Midpoint	Desired	Basis for Goal	Escapement Assessment	Method
Systems With Fish Weirs								
		Early	680	837	975			
		Late	550	727	915			
	For 10 Systems - Total		1,230	1.564	1,890			
Systems Without Fish Weirs								
	For 29 Systems - Total		126	190	245			
For All Systems Combined								
	For 39 Systems - Grand Total		1,356	1,754	2,135			

[a] All systems with fish weirs are denoted with an asterisk (*)1; all un-asterisked systems are un-weired.
[b] Run timing identifies "early" as those stocks managed during the period June 9 to approximately July 15 and "lage" as those stocks managed during the approximate period July 15 through season's end.
[c] Based upon historical production database (historical harvest and/or escapement data).
[d] Based upon production potential as estimated by Kodiak Finfish Management Staff (as of 9/90)
[e] Assessment Method: Actual (unestimated) total count of escapement fish through a fish weir.
[f] Assessment Method: ADF&G aerial survey count of fish in freshwater.
[g] Assessment Method: ADF&G aerial survey count in saltwater of fish which will eventually escape into freshwater i.e. there are no oportunities for commercial harvest of these fish.
[h] Assessment Method: Public aerial/skiff/foot survey counts of fish in freshwater.
[i] Based upon system review of production potential as estimated by Kodiak Finfish Research and Management Staff (as of 9/90).
[j] Assessment Method: ADF&G foot survey count of fish in freshwater.

Table 16. Coho salmon escapement goals for fish weir systems in the Kodiak Management Area, 1988.

Weir Site	Interim Goals	Interim Dates 8/15 Weir	8/15 (Bldup)	8/20 Weir	8/20 (Bldup)	8/25 Weir	8/25 (Bldup)	8/31 Weir	8/31 (Bldup)	9/5 Weir	9/5 (Bldup)	9/10 Weir	9/10 (Bldup)	9/15 Weir	9/15 (Bldup)	9/20 Weir	9/20 (Bldup)
Karluk (255-101)	Min.	-	-	50	-	100	(1,400)	300	(2,200)	1,500	(3,500)	3,000	(7,000)	8,000	(5,000)	10,000	(5,000)
	Des.	-	-	500	-	1,000	(2,000)	3,000	(4,000)	3,000	(6,000)	6,000	(9,000)	9,000	(8,000)	20,000	(5,000)
Ayakulik (256-201)	Min.	500	(1,000)	3,000	(2,000)	4,000	(3,500)	7,000	(5,000)	10,000	(7,000)	12,000	(6,000)	-	(6,000)	-	(2,000)
	Des.	2,000	(1,500)	6,000	(2,500)	7,000	(5,000)	13,000	(6,000)	15,000	(8,000)	18,000	(9,000)	-	(8,000)	-	(4,000)
Dog Salmon (257-403)	Min.	-	(100)	50	-	500	-	1,500	-	2,000	-	2,500	-	3,500	-	-	(1,000)
	Des.	-	(200)	200	-	1,500	-	3,000	-	4,500	-	4,500	-	5,500	-	-	(3,000)
Upper Station (257-304)	Min.	-	-	50	-	500	-	1,500	-	2,000	-	2,500	-	3,500	-	-	-
	Des.	-	-	200	-	1,500	-	3,500	-	4,000	-	4,500	-	5,500	-	-	-
Akalura (257-302)	Min.	-	-	-	-	50	-	250	-	500	-	1,000	-	1,500	-	-	-
	Des.	-	-	-	-	200	-	1,000	-	1,500	-	2,500	-	3,500	-	-	-
Horse Marine (257-402)	Min.	-	-	-	-	50	-	200	-	400	-	800	-	1,000	-	-	-
	Des.	-	-	-	-	100	-	400	-	800	-	1,600	-	2,500	-	-	-
Saltery (259-415)	Min.	-	-	-	(100)	50	(500)	300	(1,000)	1,000	(1,000)	2,000	(1,000)	2,500	(2,000)	3,000	(2,000)
	Des.	-	-	-	(500)	100	(1,000)	1,000	(2,000)	2,000	(2,000)	3,000	(2,000)	4,000	(3,000)	5,000	(5,000)
Buskin (259-211)	Min.	25	-	100	-	300	-	400	-	1,000	-	2,000	-	2,000	-	3,000	(3,000)
	Des.	100	-	300	-	500	-	1,000	-	2,000	-	3,500	-	4,000	-	5,000	(4,000)
Litnik (252-342)	Min.	500	-	1,000	-	1,500	-	2,000	-	2,500	-	3,000	-	3,500	-	-	-
	Des.	2,000	-	3,000	-	4,000	-	5,000	-	6,000	-	7,000	-	8,000	-	-	-
Pauls (251-831)	Min.	500	-	1,500	-	3,000	-	3,500	-	4,500	-	5,500	-	6,500	-	-	-
	Des.	2,000	-	3,000	-	5,000	-	6,000	-	7,000	-	8,000	-	9,000	-	-	-
Perenosa (251-830)	Min.	50	-	500	-	1,000	-	1,300	-	1,500	-	1,700	-	2,000	-	-	-
	Des.	500	-	1,000	-	3,000	-	2,800	-	3,000	-	3,200	-	3,500	-	-	-
Big Bay (251-601)	Min.	20	-	100	-	150	-	200	-	250	-	300	-	400	(600)	600	(400)
	Des.	100	(200)	200	(300)	300	(300)	400	(400)	500	(600)	600	(1,000)	800	(1,200)	1,300	(700)
Bear Creek (251-706)	Min.	10	-	50	-	100	-	125	-	150	-	175	-	150	-	350	-
	Des.	50	(50)	150	(100)	200	(150)	250	(200)	300	(400)	350	(600)	500	(500)	700	(400)

Table 17. Peak indexed coho salmon escapement goals for Northeast District non-fish weir systems in the Kodiak Management Area, 1988.[a,b]

Geographical Location	Stream Name	Stream Number	Escapement Goals Minimum	Escapement Goals Desired
Monashka/Mill Bay	Monashka	(259-101)	20	35
	Virginia	(259-105)	30	45
	Pillar	(259-102)	30	45
	Island Lake	(259-103)	40	60
Subtotal	**4 Streams**		**120**	**180**
Woman's Bay[c]	Buskin	(259-211)	2,000[d]	4,210[d]
	Sargent	(259-221)	65	100
	Russian	(259-222)	40	60
	Paramanof	(259-224)	20	30
	Salonie	(259-223)	350	500
	Cliff Point	(259-232)	10	20
Subtotal	**6 Streams**		**2,485**	**4,210**
Middle Bay	Short	(259-235)	10	20
	Salt	(259-233)	20	30
	American	(259-231)	300	400
	Slough	(259-234)	100	200
Subtotal	**4 Streams**		**430**	**650**
Kalsin Bay	Mayflower	(259-246)	30	45
	Sid Olds	(259-242)	450	675
	Kalsin	(259-243)	100	150
	Frank	(259-244)	10	20
	Myrtle	(259-245)	30	45
Subtotal	**5 Streams**		**620**	**935**
Outer Chiniak Bay	Rosalyn	(259-251)	600	1,200
	Twin	(259-252)	40	60
	Capelin	(259-253)	20	30
	Chiniak	(259-254)	100	150
	Chiniak Lagoon	(259-255)	10	20
Subtotal	**5 Streams**		**770**	**1,460**

-Continued-

Table 17. (page 2 of 2)

Geographical Location	Stream Name	Stream Number	Escapement Goals Minimum	Escapement Goals Desired
Coastal Chiniak	Sacramento	(259-401)	40	60
	Twin Peaks	(259-402)	10	20
	Valley	(259-403)	10	20
	Barry's	(259-405)	10	20
	Burton's	(259-404)	10	20
Subtotal	**5 Streams**		**70**	**120**
GRAND TOTAL	**29 Streams**		**4,475**	**7,555**

[a] Total indexed escapement as of October and November aerial and foot surveys.

[b] The source of these escapement goals is Kodiak Area fishery biologists, Frank VanHulle and Pete Murray with the Sport Fish Division, and Ken Manthey, Larry Malloy and Dave Prokopowich with the Commercial Fisheries Division. The basis for these goals is the annual escapement and subsequent return data derived from approximately 1970 through 1988.

[c] Includes the Buskin River actual total escapement obtained by fish weir count.

[d] Buskin River actual weir escapement as of 9/10, an important date for management of the freshwater sport fisheries in Buskin River.

Table 18. Pink salmon escapement goals by district for major pink systems in the Kodiak Management Area, 1988.

Index Stream	Stream Number	Even Years Minimum	Even Years Desired	Odd Years Minimum	Odd Years Desired
AFOGNAK DISTRICT PINK SALMON ESCAPEMENT GOALS[a,b,c]					
Malina	(251-105)	20,000	60,000	5,000	15,000
Paramanof	(251-404)	10,000	30,000	5,000	15,000
Little Waterfall[b]	(251-822)	15,000	45,000	15,000	45,000
Discoverer	(281-830)	20,000	60,000	20,000	60,000
Pauls Bay[b]	(251-831)	5,000	15,000	5,000	14,000
Seal Bay	(251-901)	5,000	15,000	5,000	15,000
Big Danger	(252-332)	15,000	45,000	10,000	30,000
Marka	(252-334)	30,000	90,000	10,000	30,000
Litnik[b]	(252-342)	30,000	90,000	10,000	30,000
N.W. KODIAK DISTRICT PINK SALMON ESCAPEMENT GOALS[a,b,c]					
Sheratin	(253-371)	15,000	45,000	10,000	30,000
Baumans	(253-333)	5,000	15,000	5,000	15,000
Terror	(253-331)	40,000	120,000	30,000	90,000
Uganik	(253-122)	80,000	240,000	70,000	210,000
Little	(253-115)	40,000	120,000	15,000	45,000
Zachar	(254-301)	40,000	120,000	20,000	60,000
Browns	(254-204)	40,000	120,000	5,000	15,000
Uyak	(254-202)	50,000	150,000	50,000	150,000
Uyak	(254-203)	5,000	15,000	15,000	45,000
Subtotal		**315,000**	**945,000**	**220,000**	**660,000**
S.W. KODIAK DISTRICT PINK SALMON ESCAPEMENT GOALS[a,b,c]					
Karluk[b]	(255-101)	800,000	1,600,000	20,000	60,000
Sturgeon	(256-401)	50,000	150,000	5,000	15,000
Ayakulik[b]	(256-201)	400,000	800,000	5,000	15,000
Subtotal		**1,250,000**	**2,550,000**	**30,000**	**90,000**
ALITAK DISTRICT PINK SALMON ESCAPEMENT GOALS[a,b,c]					
Narrows	(257-401)	2,000	6,000	2,000	6,000
Dog Salmon[b]	(257-403)	50,000	150,000	60,000	180,000
Deadman	(257-701)	40,000	120,000	60,000	180,000
Humpy	(257-701)	70,000	210,000	90,000	270,000
Subtotal		**162,000**	**486,000**	**212,000**	**636,000**

-Continued-

Table 18. (page 2 of 3)

Index Stream	Stream Number	Even Years Minimum	Even Years Desired	Odd Years Minimum	Odd Years Desired
N.E. KODIAK DISTRICT PINK SALMON ESCAPEMENT GOALS[a,b,c]					
Sid Olds	(259-242)	30,000	90,000	30,000	90,000
American	(259-231)	30,000	90,000	30,000	90,000
Buskin[b]	(259-211)	60,000	180,000	50,000	150,000
Subtotal		**120,000**	**360,000**	**110,000**	**330,000**
EASTSIDE KODIAK DISTRICT PINK SALMON ESCAPEMENT GOALS[a,b,c]					
7-Rivers	(258-701)	40,000	120,000	40,000	120,000
Kaiugnak	(258-542)	10,000	30,000	10,000	30,000
Barling	(258-522)	30,000	90,000	30,000	90,000
Kiliuda	(258-207)	20,000	60,000	10,000	30,000
Saltery[b]	(259-415)	20,000	60,000	30,000	90,000
Miam	(259-412)	20,000	60,000	10,000	30,000
Hurst	(259-414)	10,000	30,000	10,000	30,000
Subtotal		**150,000**	**450,000**	**140,000**	**420,000**
MAINLAND KODIAK DISTRICT PINK SALMON ESCAPEMENT GOALS[a,b,c]					
Big River	(262-152)	10,000	30,000	10,000	30,000
Village	(262-153)	15,000	45,000	15,000	45,000
Cape Chiniak	(262-205)	5,000	15,000	3,000	9,000
Big Hallo	(262-203)	2,000	6,000	2,000	6,000
Kukak	(262-271)	3,000	9,000	2,000	6,000
Missak	(262-402)	5,000	15,000	3,000	9,000
Kinak	(262-451)	20,000	60,000	20,000	60,000
Geographic	(262-501)	4,000	12,000	4,000	12,000
Dakavak	(262-551)	25,000	75,000	20,000	60,000
Kashvik	(262-604)	25,000	75,000	25,000	75,000
Big Alinchak	(262-651)	30,000	90,000	30,000	60,000
Portage	(262-702)	15,000	45,000	10,000	30,000
Oil	(262-751)	15,000	45,000	10,000	30,000
Jute	(262-801)	2,000	6,000	1,000	6,000
Kanatak	(262-802)	10,000	30,000	10,000	30,000
Big Creek	(262-851)	70,000	210,000	60,000	180,000
Subtotal		**246,000**	**738,000**	**215,000**	**645,000**
GRAND TOTAL		**2,401,000**	**6,003,000**	**1,010,000**	**3,030,000**

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Table 18. (page 3 of 3)

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[a] These goals are indexed escapement goals since they were developed using a database derived from aerial observations. Exceptions to these indexed goals are the actual goals for systems having fish weirs.

[b] These goals are actual total escapement goals developed using a database derived from hand-tallied total escapement observations at fish weirs on specific systems.

[c] These goals are not intended to be biological escapement goals, such as the goals identified for chinook, sockeye, and coho in this document. The goals in this table are ones needed to insure stable pink salmon production of a commercially viable magnitude. Thus these goals represent a "working" range for management of Kodiak's commercial pink salmon fisheries whereby escapements within these ranges should create the potential for maximum production of progeny returns. The effect of not achieving minimum escapement requirements should result in significant but temporary losses in commercial production, whereas the biological integrity of the affected stock should not be significantly impacted. However a reasonable level of brood stock escapement is still required for stock perpetuation, the magnitude of which should be based upon historical return per spawner data for documented record low escapements in the Kodiak Management Area.

Table 19. Pink salmon historical escapements for major weired systems in the Kodiak Management Area, 1988.

Week Ending	1970	1972	1974	1976	1978	1980	1982	1984	1986	1988	1970-88 Avg.
AYAKULIK RIVER SYSTEM											
7/07	882	592	191	2,202	521	584	3,485	4,917	222	81	1,368
7/14	6,935	4,905	12,833	22,613	3,859	154,481	64,027	44,938	2,796	382	31,777
7/21	131,778	19,847	118,855	97,381	32,867	415,147	260,323	107,841	13,665	1,107	119,881
7/28	424,457	70,745	292,468	268,361	220,612	602,036	431,353	166,990	22,292	8,745	250,806
8/04	649,563	96,866	473,346	517,869	467,549	741,707	601,465	341,173	78,846	56,724	402,511
8/11	753,982	99,548	563,704	679,847	615,982	845,492	666,278	534,838	214,382	219,708	519,376
8/18	771,834	100,401	602,816	709,575	802,814	857,627	721,462	580,538	521,766	338,821	600,765
8/25	-	-	612,488	-	950,000	-	-	631,060	558,042	370,613	628,310
Total	771,834	100,401	612,712	709,575	1,000,000	857,627	721,462	631,060	560,210	397,409	636,229
Date Weir Out	8/15	8/14	8/27	8/17	8/22	8/15	8/18	8/25	8/30	9/02	
KARLUK RIVER SYSTEM											
7/07		**Weir located at lake		136	60	37	65	57	40	14	58
7/14		**Weir located at lake		338	175	425	188	330	62	294	259
7/21		**Weir located at lake		942	270	233,709	451	248,570	528	1,535	49,429
7/28		**Weir located at lake		1,392	783	1,199,136	201,654	461,880	4,346	2,722	267,416
8/04		**Weir located at lake		66,351	91,937	1,360,584	569,879	982,000	14,862	11,506	442,446
8/11		**Weir located at lake		224,308	145,736	1,738,093	1,618,200	1,187,720	123,658	105,907	734,803
8/18		**Weir located at lake		299,183	722,242	2,125,346	2,152,385	1,416,560	217,169	387,031	1,045,702
8/25		**Weir located at lake		342,462	1,006,250	2,236,445	2,265,618	1,591,360	525,240	538,455	1,215,119
9/01		**Weir located at lake		367,794	1,253,697	2,341,149	2,317,618	1,656,370	654,581	673,322	1,323,504
9/08		**Weir located at lake		372,808	1,373,749	2,358,604	2,325,618	1,671,658	666,947	707,524	1,353,844
9/15		**Weir located at lake		373,392	1,380,307	2,359,160	2,326,674	1,672,192	667,761	711,637	1,355,875
Total				373,439	1,380,792	2,359,160	2,326,674	1,672,408	668,297	711,676	1,356,064
Date Weir Out				9/17	10/23	9/09	9/15	9/29	10/2	9/17	
DOG SALMON SYSTEM											
7/07								0	0	0	0
7/14								16	0	0	5
7/21								189	0	0	63
8/04								424	120	7	184
8/11								1,906	764	1,236	1,302
8/18								11,067	34,212	10,118	18,466
8/25								55,964	105,149	23,096	61,403
9/01								-	138,659	33,693	76,105
9/08								-	149,194	42,815	82,658
9/15								-	-	-	-
Total								55,964	149,194	59,489	88,216
Date Weir Out								8/24	9/4	9/11	

Table 20. Chum salmon indexed escapement goals by district in the Kodiak Management Area, 1988.[a,b,c]

Stream Name	Stream Number	Escapement Goals Minimum	Escapement Goals Desired
N.W. KODIAK DISTRICT			
Red Cloud	(259-382)	3,000	9,000
Slough	(259-383)	1,000	3,000
Sheratin	(259-371)	5,000	15,000
Kizhuyak	(259-365)	8,000	24,000
Terror	(253-331)	5,000	15,000
Uganik	(253-122)	10,000	30,000
Spiridon	(254-401)	15,000	45,000
Zachar	(254-301)	15,000	45,000
Uyak	(254-202)	10,000	30,000
Subtotal		**72,000**	**216,000**
S.W. KODIAK DISTRICT			
Sturgeon	(256-401)	50,000	150,000
Subtotal		**50,000**	**150,000**
ALITAK DISTRICT			
Big Sukoi	(257-102)	20,000	60,000
Dog Salmon	(257-403)	2,000	6,000
Narrows	(257-401)	2,000	6,000
Deadmans	(257-502)	5,000	15,000
Sulua	(257-603)	8,000	24,000
Portage	(257-601)	1,000	3,000
Subtotal		**38,000**	**114,000**
EASTSIDE KODIAK DISTRICT			
Sitkinak Chum	(258-807)	3,000	9,000
Kaguyak	(258-602)	5,000	15,000
Kiavak Portage	(258-551)	1,000	3,000
Kaiugnak	(258-603)	3,000	9,000
Barling	(258-522)	3,000	9,000

-Continued-

Table 20. (page 2 of 3)

Stream Name	Stream Number	Escapement Goals Minimum	Escapement Goals Desired
EASTSIDE KODIAK DISTRICT (continued)			
Midway	(258-521)	5,000	15,000
Newman	(258-513)	3,000	9,000
Natalia	(258-512)	3,000	9,000
Rolling	(258-511)	4,000	12,000
Amee	(258-302)	1,000	3,000
McCord Beach	(258-301)	1,000	3,000
Pivot Point	(258-212)	1,000	3,000
Marker Grove	(258-211)	1,000	3,000
Dukaluk	(258-208)	2,000	6,000
W. Kiliuda	(258-207)	8,000	24,000
E. Kiliuda	(258-206)	3,000	9,000
Burn's Spit	(258-210)	1,000	3,000
Coxcomb Point	(258-205)	6,000	18,000
Dog Bay	(258-204)	6,000	18,000
Shearwater	(258-202)	1,000	3,000
Gull Cape	(259-428)	8,000	24,000
Eagle Harbor	(259-424)	4,000	12,000
Kiliuda Pass	(259-243)	2,000	6,000
Hidden Basin	(259-418)	4,000	12,000
Wild Creek	(259-417)	2,000	6,000
Rough Creek	(259-416)	3,000	9,000
Saltery	(259-415)	2,000	6,000
Miam	(259-412)	2,000	6,000
Subtotal		**88,000**	**264,000**
N.E. KODIAK DISTRICT			
Kalsin River	(259-243)	1,000	3,000
Sid Olds	(259-242)	6,000	18,000
American	(259-231)	6,000	18,000
Salt	(259-233)	2,000	6,000
Salonie Creek	(259-223)	1,000	3,000
Russian River	(259-222)	2,000	6,000
Sargent Creek	(259-221)	2,000	6,000
Subtotal		**20,000**	**60,000**

-Continued-

Table 20. (page 3 of 3)

Stream Name	Stream Number	Escapement Goals Minimum	Escapement Goals Desired
MAINLAND DISTRICT			
Productive Fork	(262-108)	1,000	3,000
Swikshak	(262-151)	2,000	6,000
Big River	(262-152)	40,000	120,000
Village Creek	(262-153)	10,000	30,000
Chiniak Lagoon	(262-154)	8,000	24,000
Ninagiak	(262-201)	5,000	15,000
Serpent	(262-203)	10,000	30,000
Cape Chiniak	(262-205)	1,000	3,000
Kukak River	(262-271)	60,000	180,000
Kukak Valley	(262-272)	3,000	9,000
Kinak Creek	(262-451)	2,000	6,000
Dakavak	(262-551)	10,000	30,000
Alagogshak	(262-602)	25,000	75,000
Kashvik	(262-604)	5,000	15,000
Big Alinchak	(262-651)	2,000	6,000
Lit. Alinchak	(262-652)	1,000	3,000
East Bear	(262-654)	8,000	24,000
West Bear	(262-656)	3,000	9,000
Portage	(262-702)	1,000	3,000
Teresa	(262-703)	8,000	24,000
Trail Creek	(262-704)	8,000	24,000
Dry Bay	(262-752)	8,000	24,000
Jute	(262-801)	1,000	3,000
Kanatak	(262-802)	1,000	3,000
Big Creek	(262-851)	10,000	30,000
Kialagvik	(262-858)	8,000	24,000
Icy Peak	(262-859)	1,000	3,000
Subtotal		**242,000**	**726,000**
GRAND TOTAL		**510,000**	**1,530,000**

[a] The set of streams in this table are those streams commonly aerial surveyed for escapement at least twice per season.

[b] DATA SOURCE: These goals were developed using both an indexed escapement database derived from historical aerial escapement observations (1977-1989) and from a historical harvest data-base (1969-1989)

[c] These goals are not biological escapement goals.

Table 21. Projected and actual commercial harvests of chinook salmon in the Kodiak Management Area, 1988-1989[a].

Location	1988 Projected	1988 Actual	1989 Projected
Afognak			
Hatchery	.000	.000	.000
Natural	1.000	2.220	1.500
Westside	1.400	10.125	5.000
Alitak	.200	.625	.400
East/Northside Kodiak	.700	1.775	1.000
Mainland	.700	7.600	2.000
Total	4.000	22.345	9.900

[a]Figures in millions.

Table 22. Commercial salmon harvest and value by gear type in the Kodiak Management Area, 1988.[a]

	Chinook	Sockeye	Coho	(Values Expressed in Million) Pink	Chum	Total	Percent
Purse Seine							
Total No.s	21,167	1,839,153	266,446	11,948,730	1,220,405	15,295,901	81.74
Avg. Wt.	12.98	5.92	8.38	3.75	9.01		
Total Lbs.	274,751	10,879,280	2,232,106	44,836,268	10,992,947	69,215,352	81.45
Avg. $/Lb.	$1.45	$2.70	$1.28	$0.81	$1.13		
Ex-Vessel $	397,564.70	29,406,693.84	2,859,327.79	36,407,049.62	12,400,044.22	81,470,680.16	78.53
For 323 Permits							
Avg. Value	1,230.85	91,042.40	8,852.41	112,715.32	38,390.23	252,231.21	
Percent	0.49	36.09	3.51	44.69	15.22	100.00	
Beach Seine							
Total No.s	75	2,075	860	234,258	21,805	259,073	1.38
Avg. Wt.	17.55	5.69	8.30	3.80	8.98		
Total Lbs.	1,316	11,810	7,142	891,087	195,756	1,107,111	1.30
Avg. $/Lb.	$1.45	$2.70	$1.28	$0.81	$1.13		
Ex-Vessel $	1,904.25	31.922.43	9,148.90	723,562.64	220,812.77	987,351.00	0.95
For 21 Permits							
Avg. Value	90.68	1,520.12	435.66	34,455.36	10,514.89	47,016.71	
Percent	0.19	3.23	0.93	73.28	22.36	100.00	
Set Gillnet							
Total No.s	1,132	856,744	35,961	2,079,367	184,190	3,157,394	16.87
Avg. Wt.	17.34	5.34	9.15	3.96	8.14		
Total Lbs.	19,632	4,577,036	392,040	8,227,743	1,498,638	14,652,089	17.24
Avg. $/Lb.	$1.50	$2.71	$1.26	$0.81	$1.17		
Ex-Vessel $	29,369.47	12,422,075.70	415,248.48	6,672,699.57	1,751,907.82	21,291,301.05	20.52
For 180 Permits							
Avg. Value	163.16	69,011.53	2,306.94	37,070.55	9,732.82	118,285.01	
Percent	0.14	58.34	1.95	31.34	8.23	100.00	

-Continued-

Table 22. (page 2 of 2)

	Chinook	Sockeye	Coho	(Values Expressed in Million) Pink	Chum	Total	Percent
Total All Gear							
Total No.s	22,374	2,697,972	303,267	14,262,355	1,426,400	18,712,368	100.00
Avg. Wt.	13.22	5.73	8.47	3.78	8.89		
Total Lbs.	295,699	15,468,126	2,568,288	53,955,098	12,687,341	84,974,552	100.00
Avg. $/Lb.	$1.45	$2.71	$1.28	$0.81	$1.13		
Ex-Vessel $	428,838.42	41,860,691.97	3,283,725.17	43,803,311.83	14,372,764.81	103,749,332.20	100.00
Kitoi Hatchery							
Kitoi No.s	0	66	31	296,683	0	296,780	
Avg. Wt.	0.00	4.00	6.65	3.54	0.00		
Total Lbs.	0	264	206	1,049,760	0	1,050,230	
Avg. $/Lb.	0.00	2.70	1.28	0.76	0.00		
Ex-Vessel $	0.00	713.59	263.89	797,817.60	0.00	798,795.08	
Test Fishery							
Total No.s	0	599	0	0	0	599	
Avg. Wt.	0.00	4.65	0.00	0.00	0.00		
Total Lbs.	0	2,783	0	0	0	2,783	
Avg. $/Lb.	0.00	2.71	0.00	0.00	0.00		
Ex-Vessel $	0.00	7,530.80	0.00	0.00	0.00	7,530.80	

[a] Numbers and pounds of fish are derived from fish ticket summaries. There were 19,402 fish tickets generated in 1988; each fish ticket represents a "landing". Each gear type had the following number of landings: Purse seine; 11,128, Beach seine; 465, and Set gillnet; 7,779. Average $/lb. figures were provided by Commercial Fisheries Entry Commission.

Table 23. Chinook salmon percent contribution to ex-vessel values in the Kodiak Management Area, 1988.

	Harvest By Gear		Contribution To Gear Totals	
	Number (Thousands)	%	% of Total	% of Ex-Vessel
Purse Seine	.021	96%	< 1%	< 1%
Beach Seine	< .001	< 01%	< 1%	< 1%
Set Gillnet	.001	04%	< 1%	< 1%
Total	.022	100%		

Table 24. Early-run sockeye salmon projected and actual harvest in the Kodiak Management Area, 1988-1989[a].

Fishery	1988 Projected	1988 Actual	1989 Projected
Cape Igvak	.280	.000	.141
Karluk	.225	.150	.250
Ayakulik	.105	.260	.367
Upper Station	.090	.092	.091
Fraser	.125	.296	.132
Minor Systems	.035	.026	.070
Other	.000	.429	.070
Total	.860	1.253	1.121

[a]Figures in millions.

Table 25. Late-run sockeye salmon projected and actual harvest in the Kodiak Management Area, 1988-1989[a].

Fishery	1988 Projected	1988 Actual	1989 Projected
Cape Igvak	.150	.034	.133
Karluk	.325	.236	.300
Ayakulik	.050	.150	.151
Upper Station	.400	.750	.779
Fraser	-	-	-
Minor Systems	.015	.005	.020
Other	.000	.271	.030
Total	.940	1.446	1.413

[a]Figures in millions.

Table 26. Sockeye salmon percent contribution to ex-vessel values in the Kodiak Management Area, 1988.

	Harvest By Gear		Contribution To Gear Totals	
	Number (Millions)	%	% of Total	% of Ex-Vessel
Purse Seine	1.839	68%	12%	38%
Beach Seine	.002	< 01%	< 01%	04%
Set Gillnet	.857	32%	27%	60%
Total	2.698	100%		

Table 27. Coho salmon projected and actual harvests in the Kodiak Management Area, 1988-1989[a].

Location	1988 Projected	1988 Actual	1989 Projected
Afognak			
Hatchery	.000	.000	.000
Natural	.040	.079	.050
Westside	.055	.091	.065
Alitak	.020	.030	.030
East/Northside Kodiak	.015	.048	.025
Mainland	.020	.055	.030
Total	.150	.303	.200

[a]Figures in millions.

Table 28. Coho salmon percent contribution to ex-vessel values in the Kodiak Management Area, 1988.

	Harvest By Gear		Contribution To Gear Totals	
	Number (Millions)	%	% of Total	% of Ex-Vessel
Purse Seine	.267	88%	02%	05%
Beach Seine	< .001	< 01%	< 01%	01%
Set Gillnet	.001	04%	< 01%	03%
Total	.303	100%		

Table 29. Pink salmon projected and actual harvests for the Kodiak Management Area, 1988-1989[a].

Location	1988 Projected	1988 Actual	1989 Projected
Afognak			
Hatchery	1.250	.307	2.100
Natural	.645	2.426	.350
Westside	9.206	6.521	3.100
Alitak	.753	.386	2.100
East/Northside Kodiak	3.080	2.874	1.850
Mainland	.316	1.748	1.000
Total	15.250	14.262	10.500

[a]Figures in millions.

Table 30. Kitoi Bay hatchery summary of returns, Kodiak Management Area, 1988[a].

	Total Harvest		Hatchery Contribution[b,c] Est. Percent of Total		Est. Number of Fish	
	Pink	Chum	Pink	Chum	Pink	Chum
Common Property Harvest						
Kitoi Bay Section	126	23	100%	100%	126	23
Izhut Bay Section	113,693	0	90%	100%	102,324	0
N.E. Kodiak Section	12,794	0	60%	100%	7,676	0
Duck Bay Section	281,137	0	70%	100%	196,796	0
Cost/Recovery/Harvest	298,439	0	100%	100%	298,439	0
Broodstock/Escapement	140,686	4,022	100%	100% -	140,686	4,022
TOTAL	**846,.875**	**4,989**	-	-	**746,047**	**4,989**

[a] Source of data in this table: Tim Joyce, Kitoi Hatchery Manager, memo dated 9/29/88.

[b] The total **1988 pink salmon hatchery return** of 746,047 adults (composed of age 2 year old fish) resulted from a fry release in the spring of 1987 which totaled 90,500,408 fry. This represents an overall survival rate for release fry to adult of .82%.

[c] The total **1988 chum salmon hatchery return** of 4,989 adults (composed of ages 3, 4, and 5 year old fish) resulted from fry releases of 630,422 fry in 1983 (the age 5 adults); 791,176 fry in 1984 (the age 4 adults); and 414,232 fry in 1985 (the age 3 adults). The dominant age of returning adults is 4 year old fish.

Table 31. Pink salmon percent contribution to ex-vessel values in the Kodiak Management Area, 1988.

	Harvest By Gear		Contribution To Gear Totals	
	Number (Millions)	%	% of Total	% of Ex-Vessel
Purse Seine	11.949	82%	78%	43%
Beach Seine	.234	2%	91%	73%
Set Gillnet	2.079	15%	28%	28%
Total	14.262	100%		

Table 32. Chum Salmon projected and actual harvest in the Kodiak Management Area, 1988-1989[a].

Location	1988 Projected	1988 Actual	1989 Projected
Afognak			
Hatchery	.000	.001	.000
Natural	.050	.087	.050
Westside	.200	.484	.350
Alitak	.100	.093	.080
East/Northside Kodiak	.250	.369	.260
Mainland	.400	.392	.275
Total	1.000	1.426	1.015

[a]Figures in millions.

Table 33. Chum salmon percent contribution to ex-vessel values in the Kodiak Management Area, 1988.

	Harvest By Gear		Contribution To Gear Totals	
	Number (Millions)	%	% of Total	% of Ex-Vessel
Purse Seine	1.220	85%	09%	15%
Beach Seine	.022	02%	09%	23%
Set Gillnet	.184	13%	06%	08%
Total	1.426	100%		

Table 34. Projected salmon harvest by species and fishery chronology for the Kodiak Management Area, 1989.

YEAR	Chinook	Sockeye	Coho	Pink	Chum	Total
1988	9,900	2,534,000	200,000	10,500,000	1,015,000	14,258,900

FISHERIES	Projected Harvest[a]
Early Run Sockeye Salmon Fisheries 6/9-7/15)	
- Cape Igvak	.141
- Karluk	.250
- Ayakulik	.550
- Upper Station	.091
- Fraser	.367
- Minor Systems	.070
- Other (Non-local stock)	.070
Sub-total	**1.539**
Pink Salmon Fisheries (7/6-9/5)	
- Afognak (Hatchery)	2.100
- Afognak (Natural)	.350
- Westside Kodiak	3.100
- Alitak	2.100
- Eastside/North end Kodiak	1.850
- Mainland	1.000
Sub-total	**10.500**
Chum Salmon Fisheries (7/6-0/5)	
- Afognak (Hatchery	.000
- Afognak (Natural)	.050
- Westside Kodiak	.350
- Alitak	.080
- Eastside/North end Kodiak	.260
- Mainland	.275
Sub-total	**1.015**
Late Run Sockeye Salmon Fisheries (7/15-9/15)	
- Cape Igvak	.133
- Karluk	.300
- Ayakulik	.225
- Upper Station	.779
- Fraser	-
- Minor Systems	.020
- Other (Non-local stocks)	.030
Sub-total	**1.487**
Coho Salmon Fisheries (8/1-10/1)	
- Afognak	.050
- Westside	.065
- Alitak	.030
- Eastside/North end Kodiak Island	.025
- Mainland	.030
Sub-total	**.200**
1989 GRAND TOTAL PROJECTED HARVEST FOR ALL KODIAK SALMON FISHERIES[b]	**14.746 Million Salmon**

[a]Figures in millions.
[b]Includes an estimated incidental chinook harvest of 5,000.

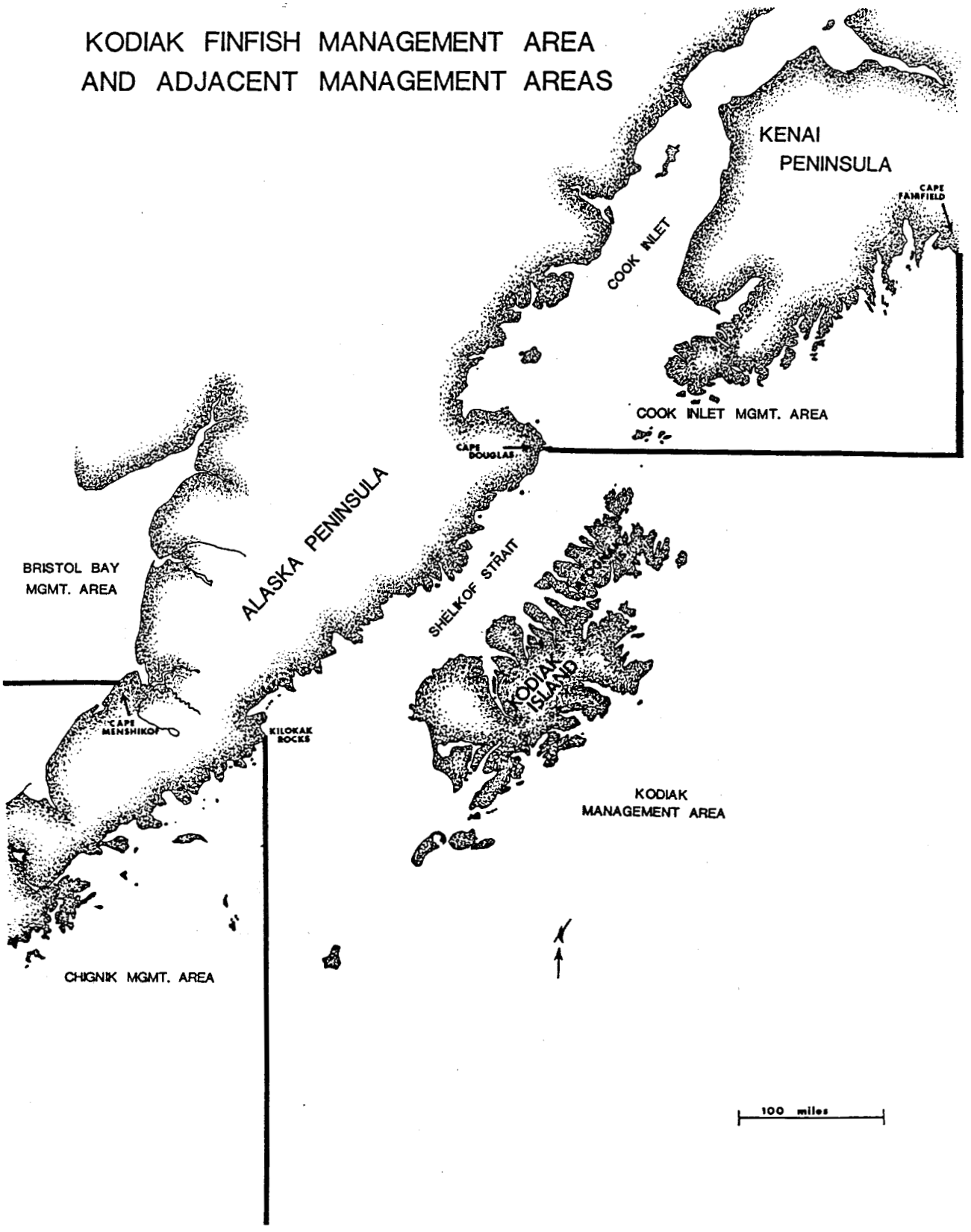

Figure 1. Geographic location of the Kodiak Management Area, 1988.

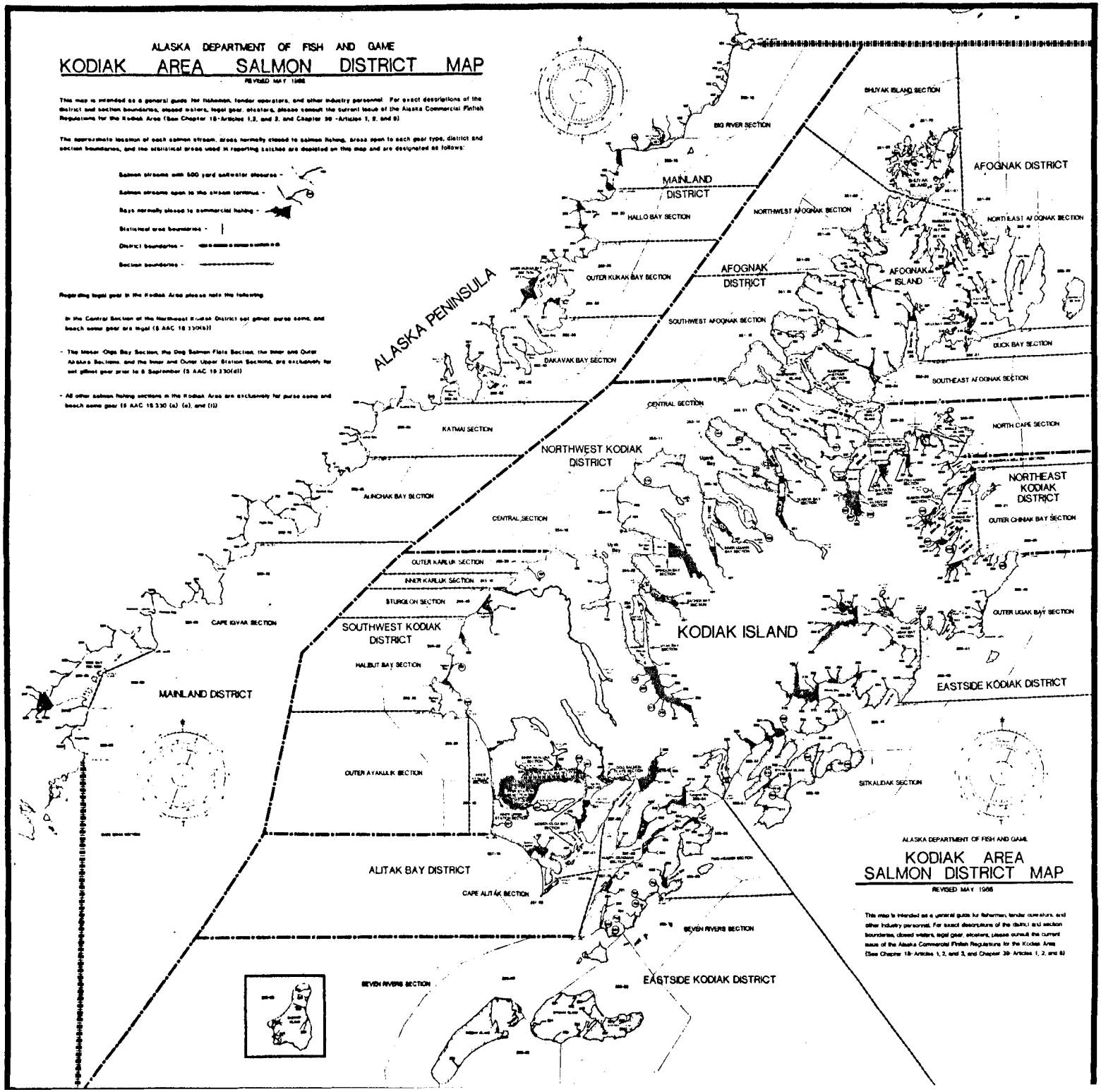

Figure 2. Kodiak Management Area salmon district map, 1988.

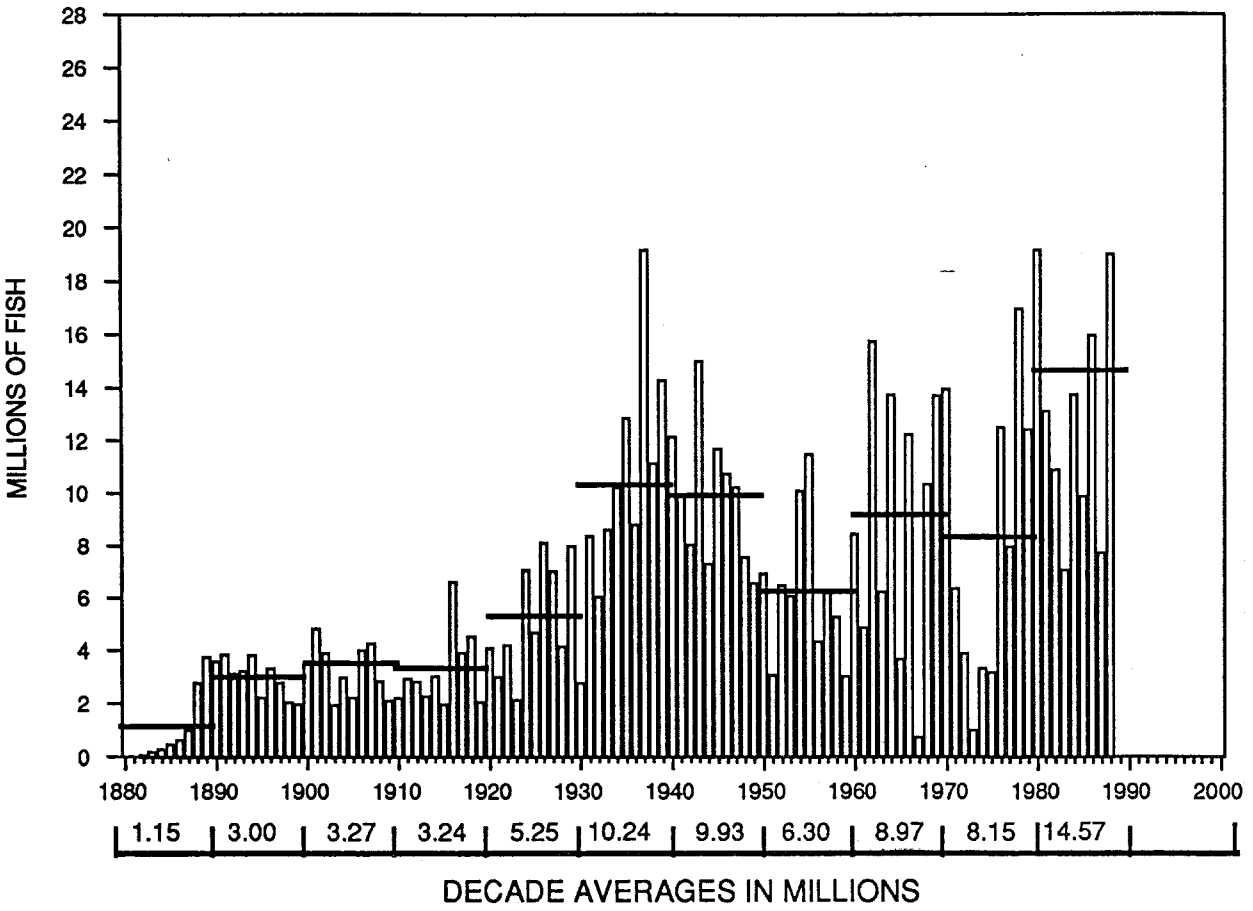

Figure 3. Historical salmon harvest, all species combined, Kodiak Management Area, 1975-1988.

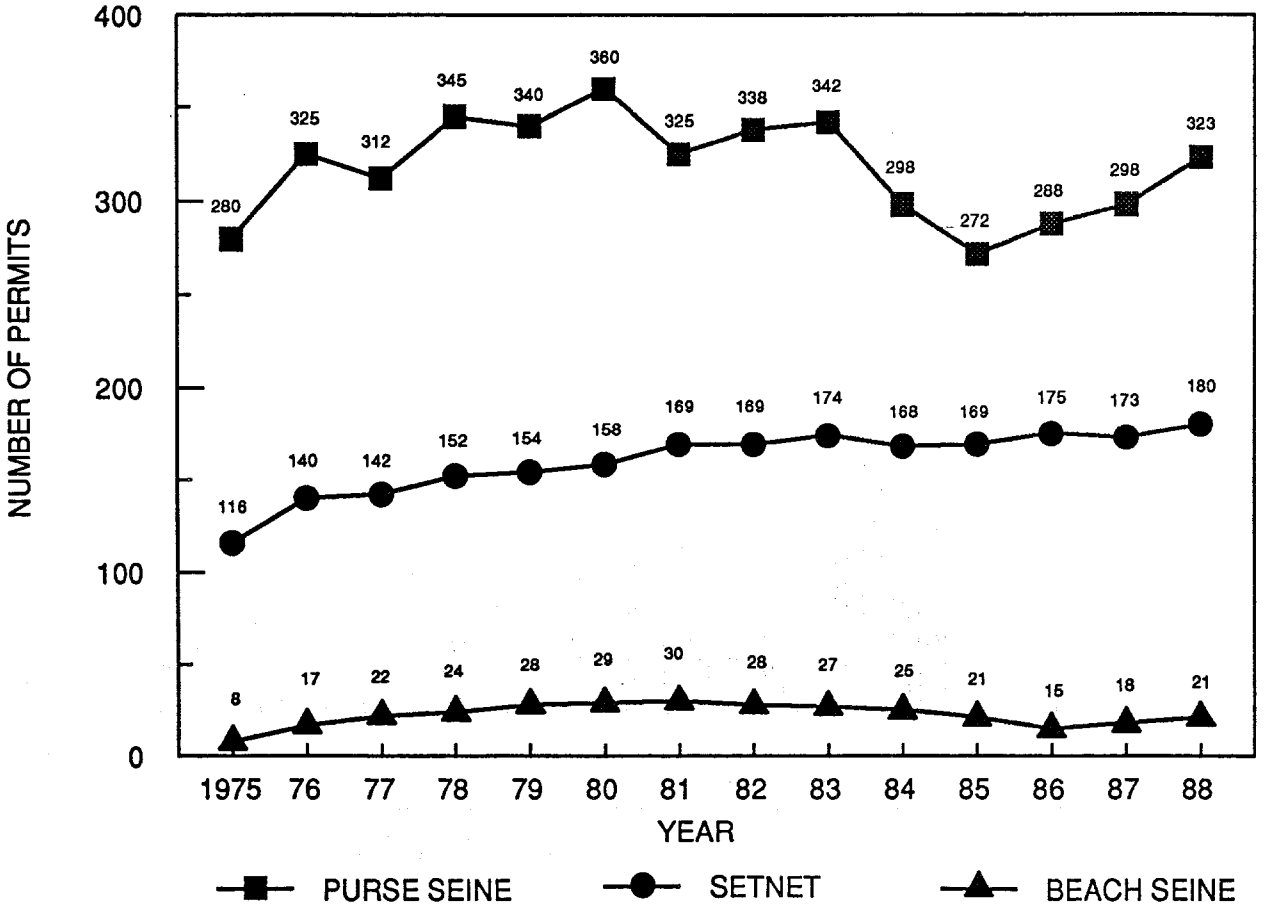

Figure 4. Annual number of active limited entry permits, Kodiak Management Area, 1975-1988.

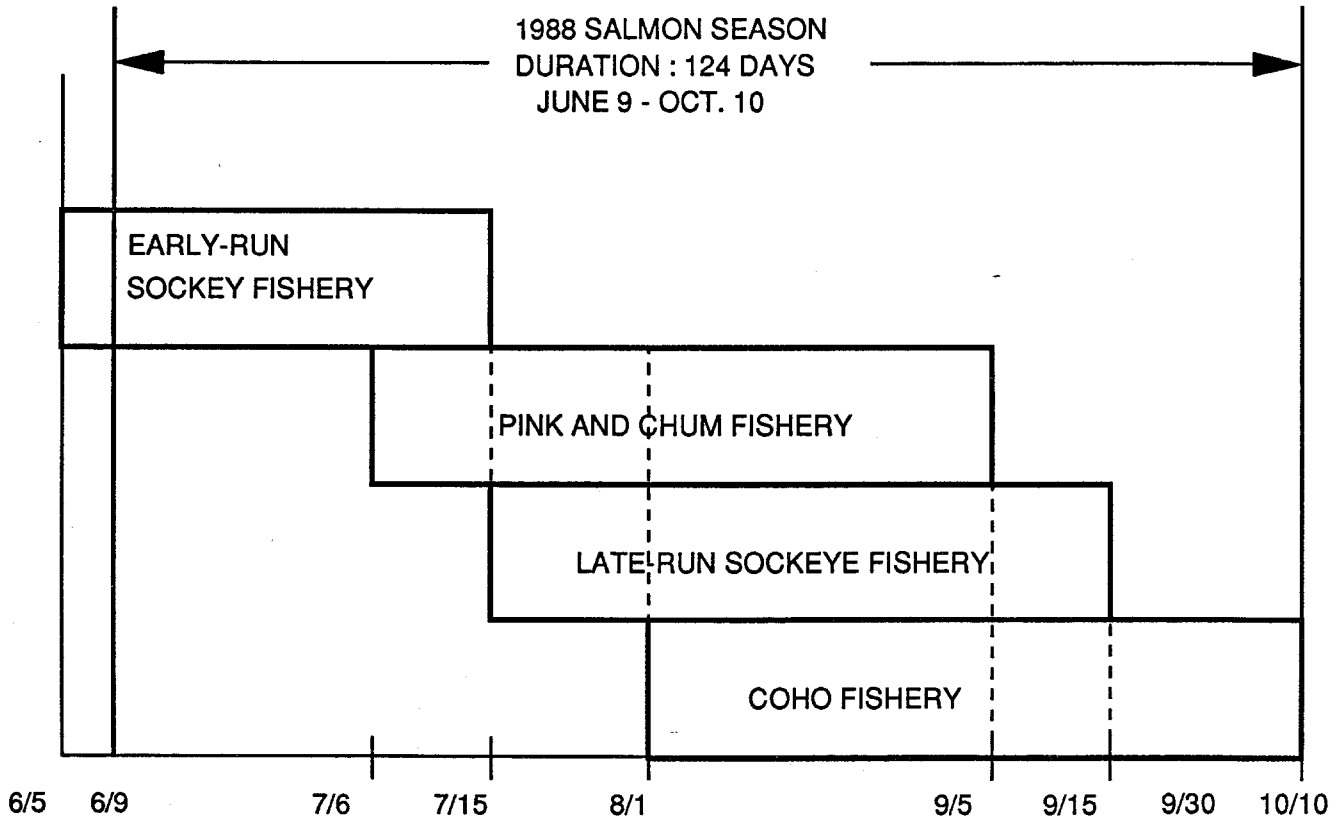

Figure 5. Commercial salmon fisheries management chronology in the Kodiak Management Area, 1988.

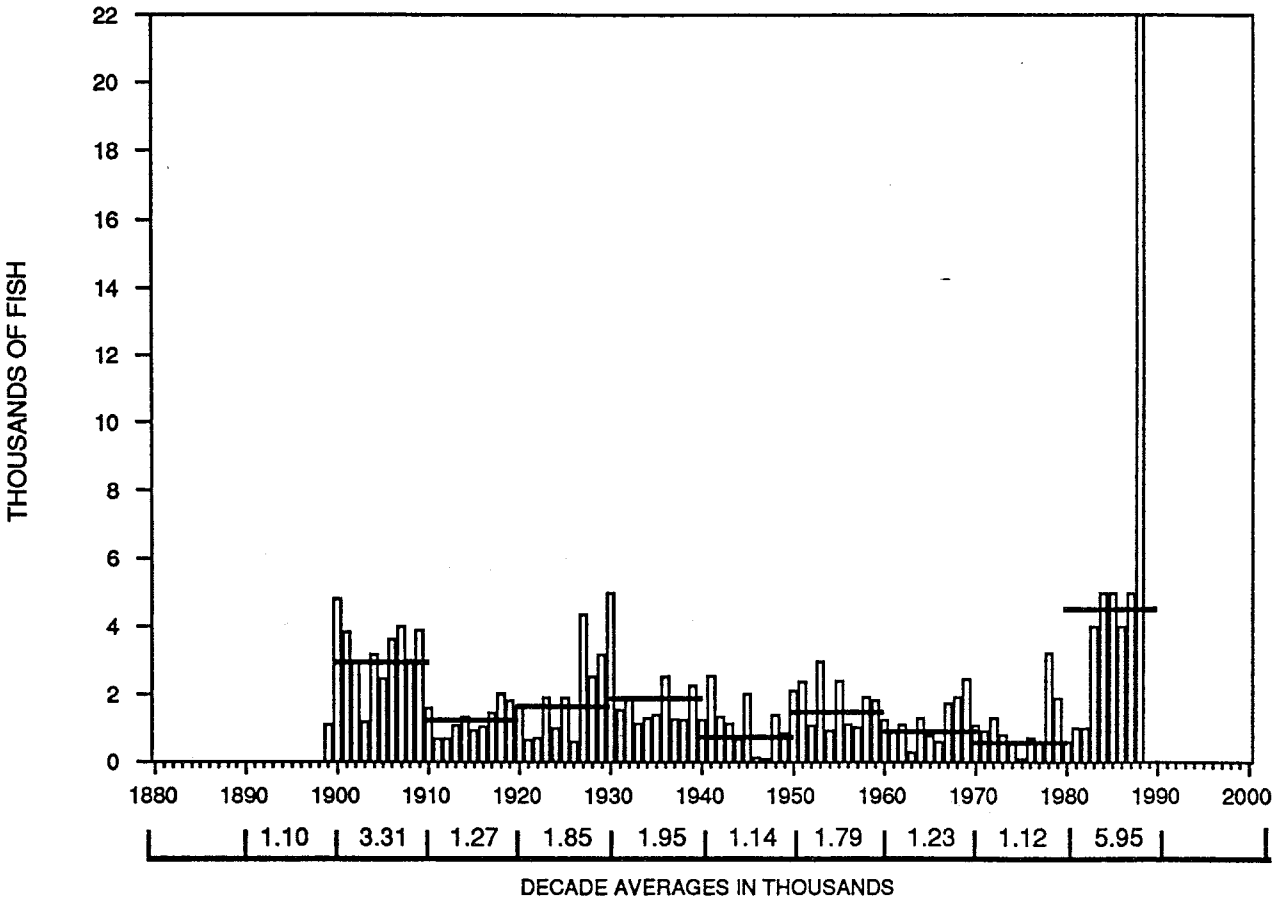

Figure 6. Historical chinook salmon commercial harvest in the Kodiak Management Area, 1899-1988.

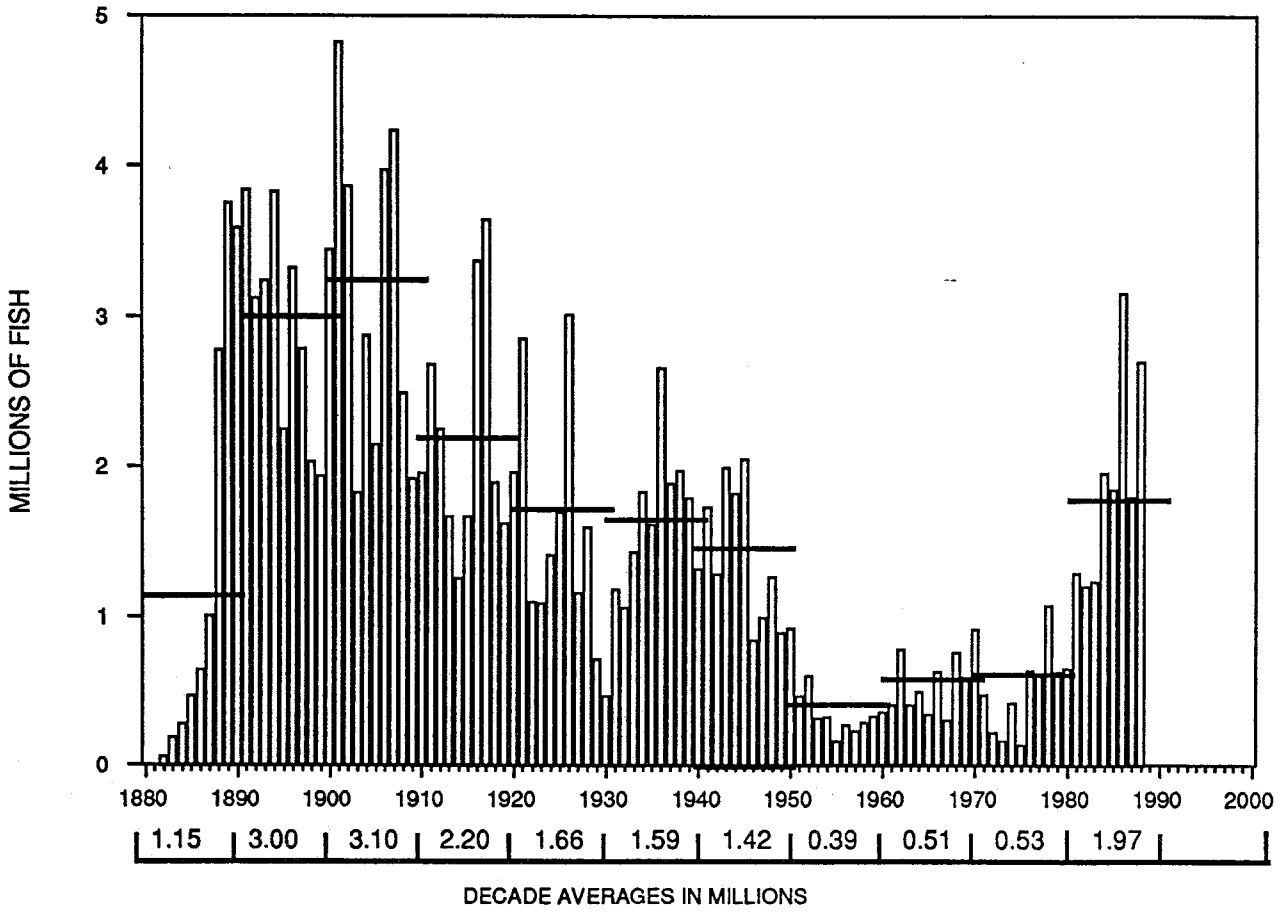

Figure 7. Historical sockeye salmon commercial harvest in the Kodiak Management Area, 1882-1988.

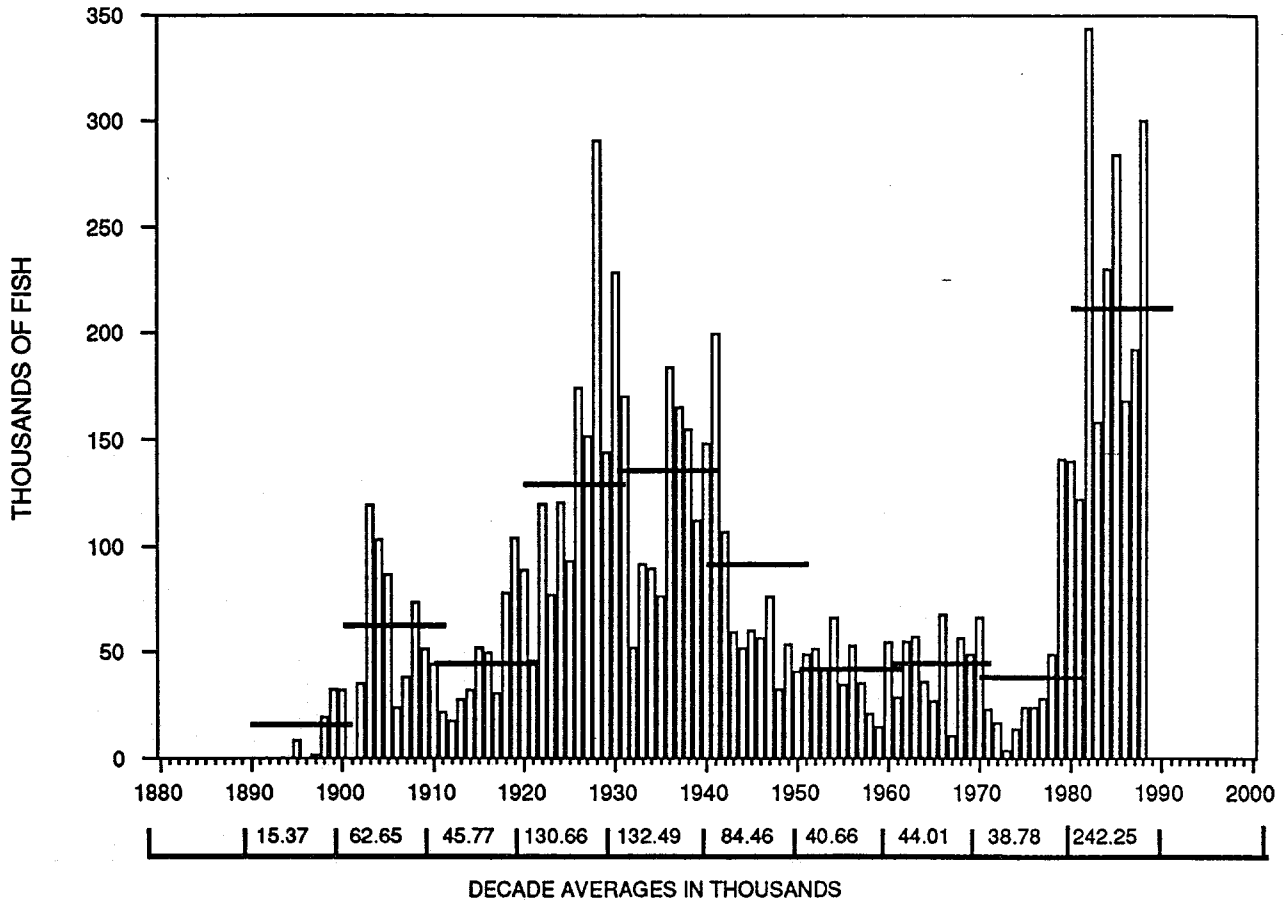

Figure 8. Historical coho salmon commercial harvest in the Kodiak Management Area, 1895-1988.

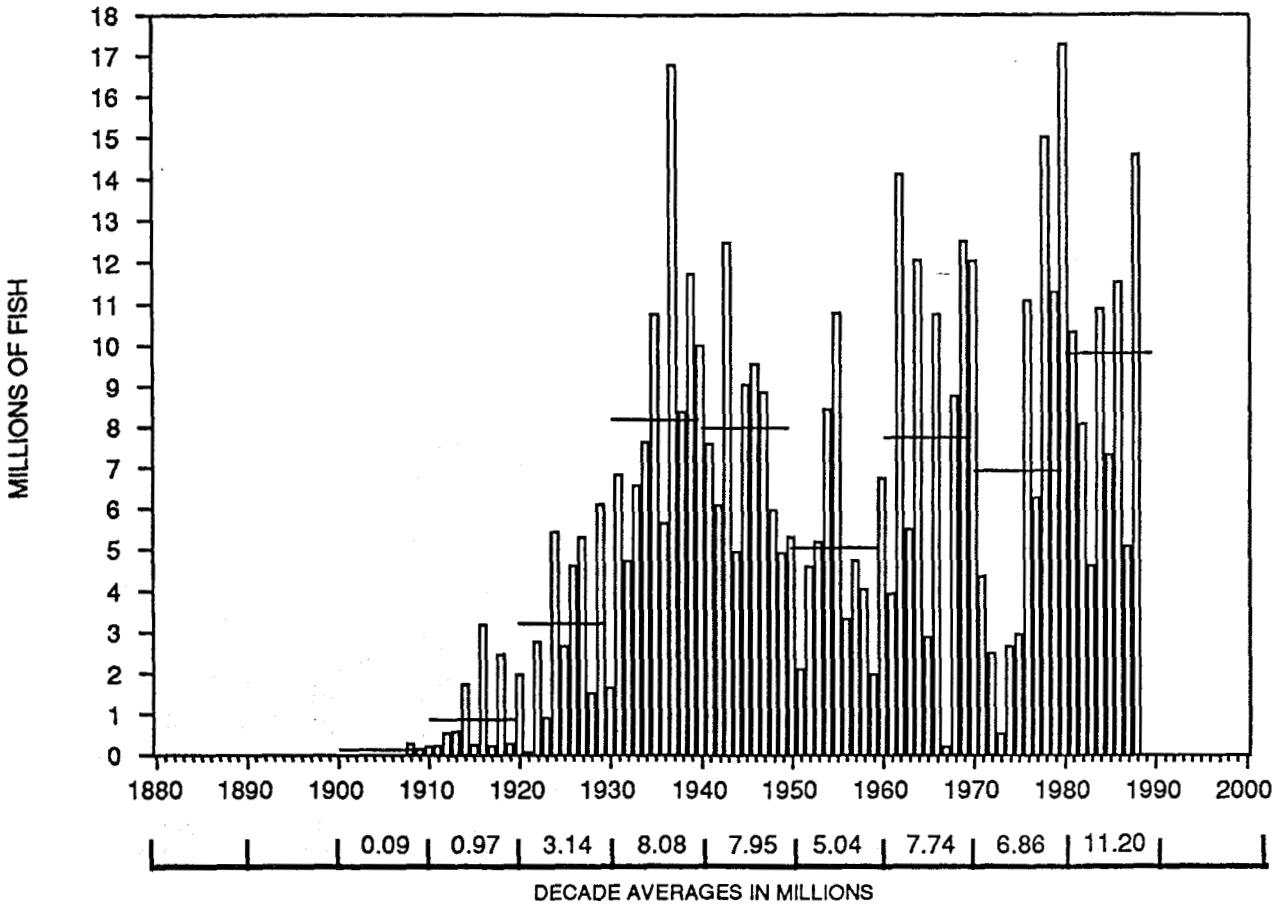

Figure 9. Historical pink salmon commercial harvest in the Kodiak Management Area, 1901-1988.

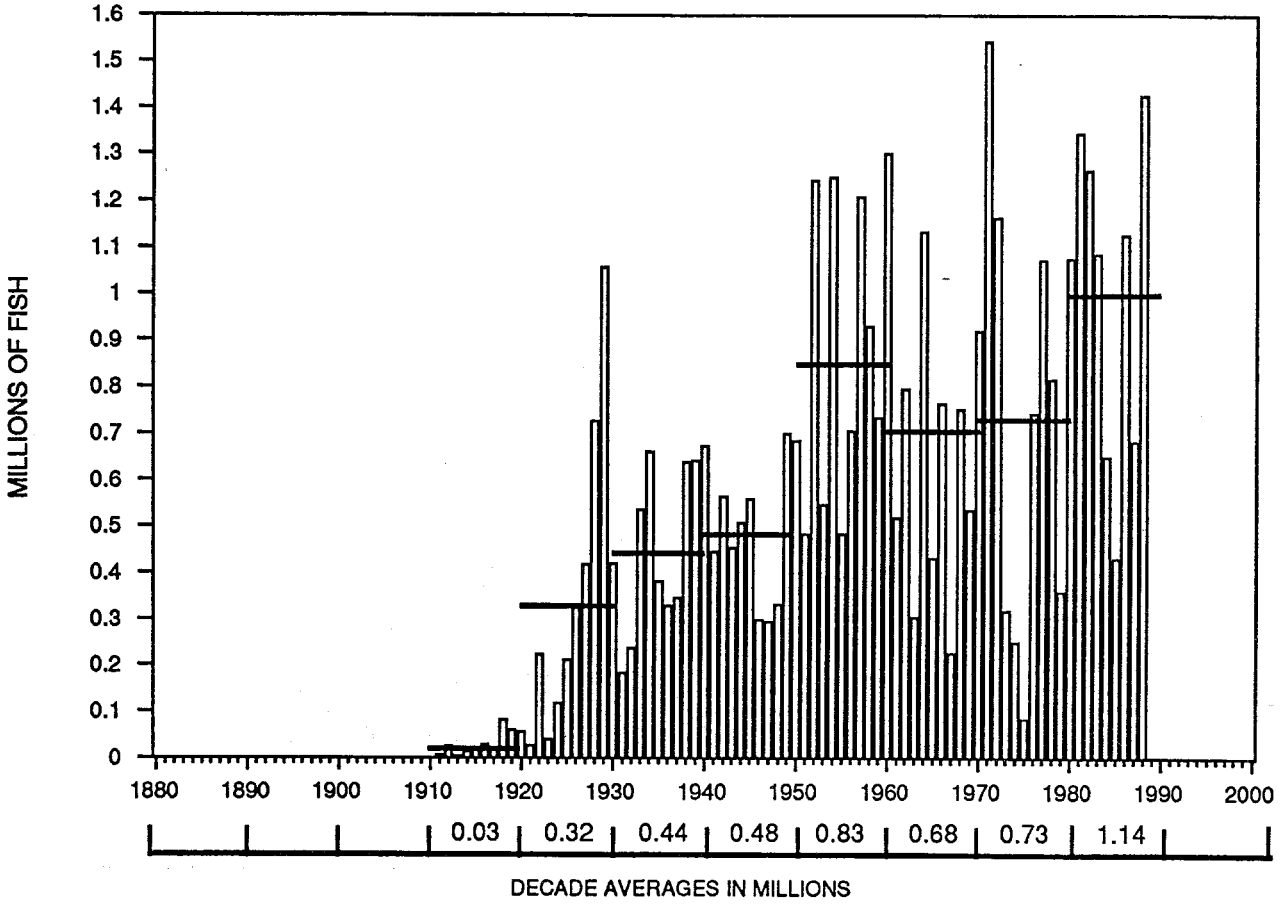

Figure 10. Historical chum salmon commercial harvest in the Kodiak Management Area, 1911-1988.

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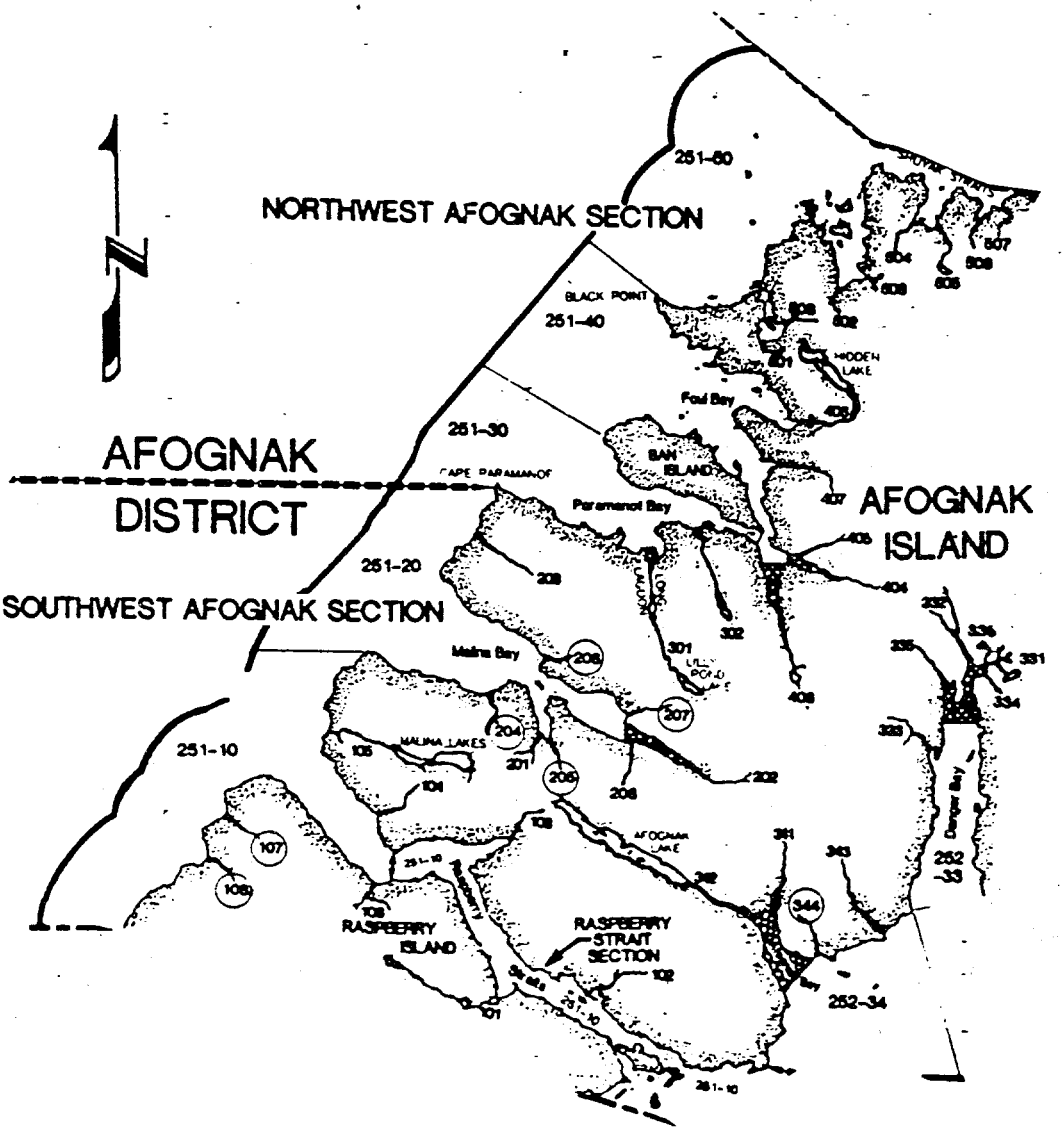
KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

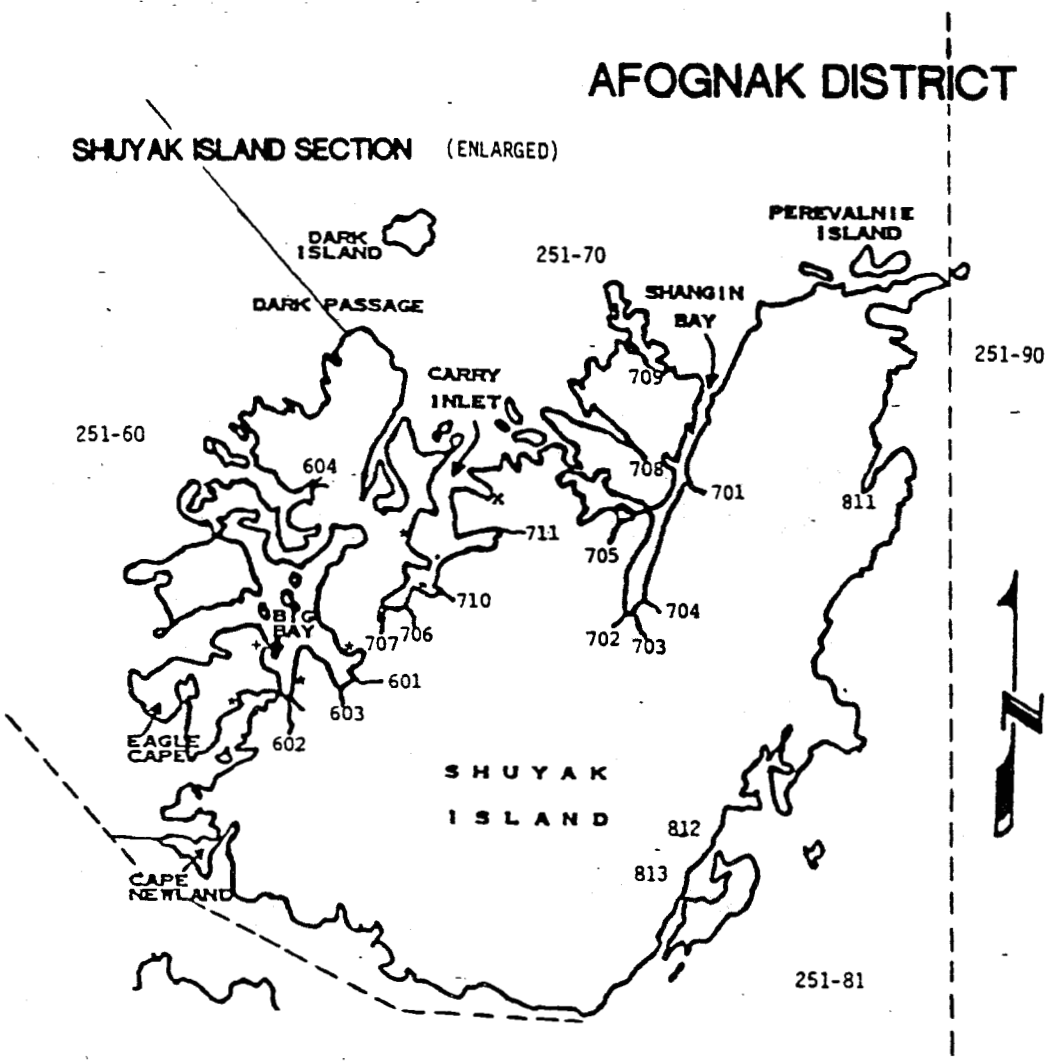
RASPBERRY CAPE NORTH TO SHUYAK STRAITS



Appendix A.2. Raspberry Cape north to Shuyak Straits, A09, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

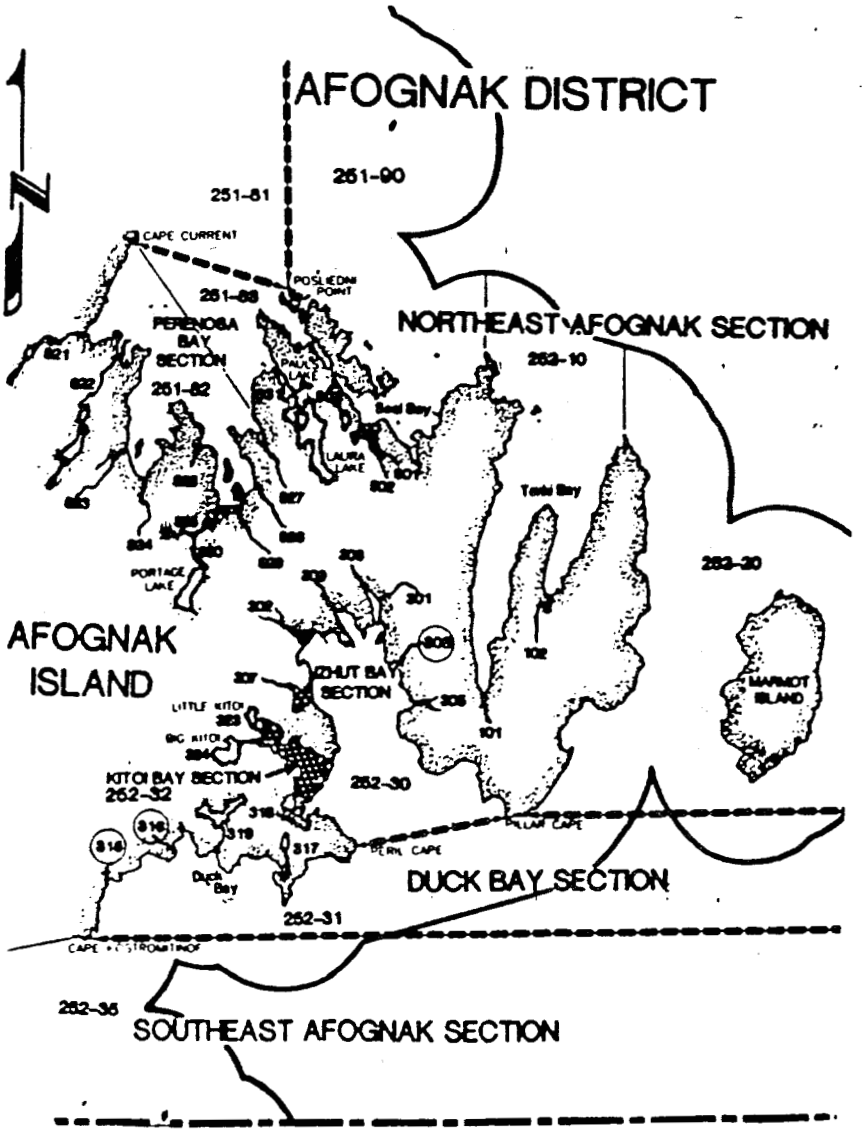
SHUYAK ISLAND



Appendix A.3. Shuyak Island, A10, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

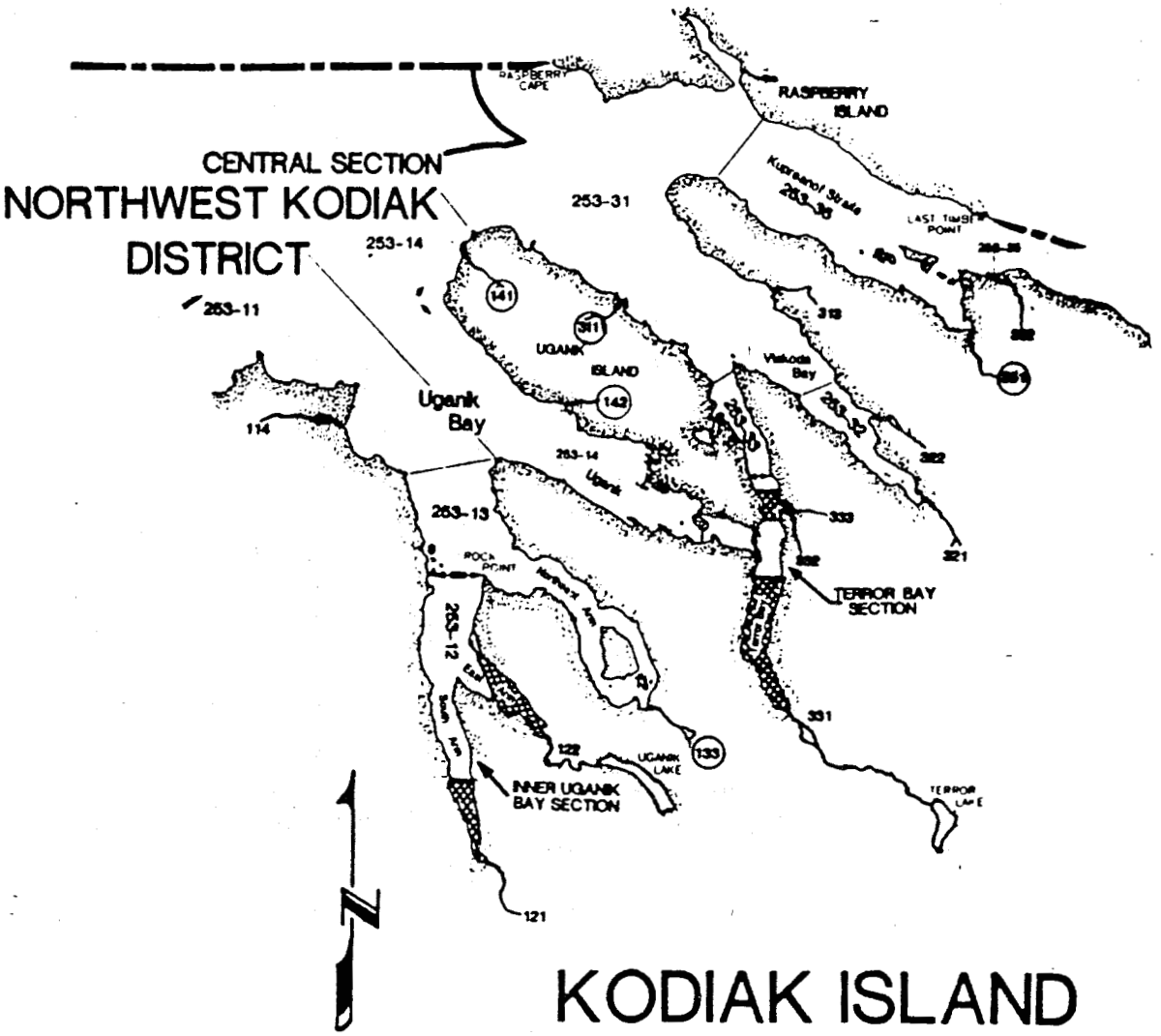
CAPE CURRANT EAST TO CAPE KOSTROMITINOF



Appendix A.4. Cape Currant east to Cape Kostromitinof, All, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

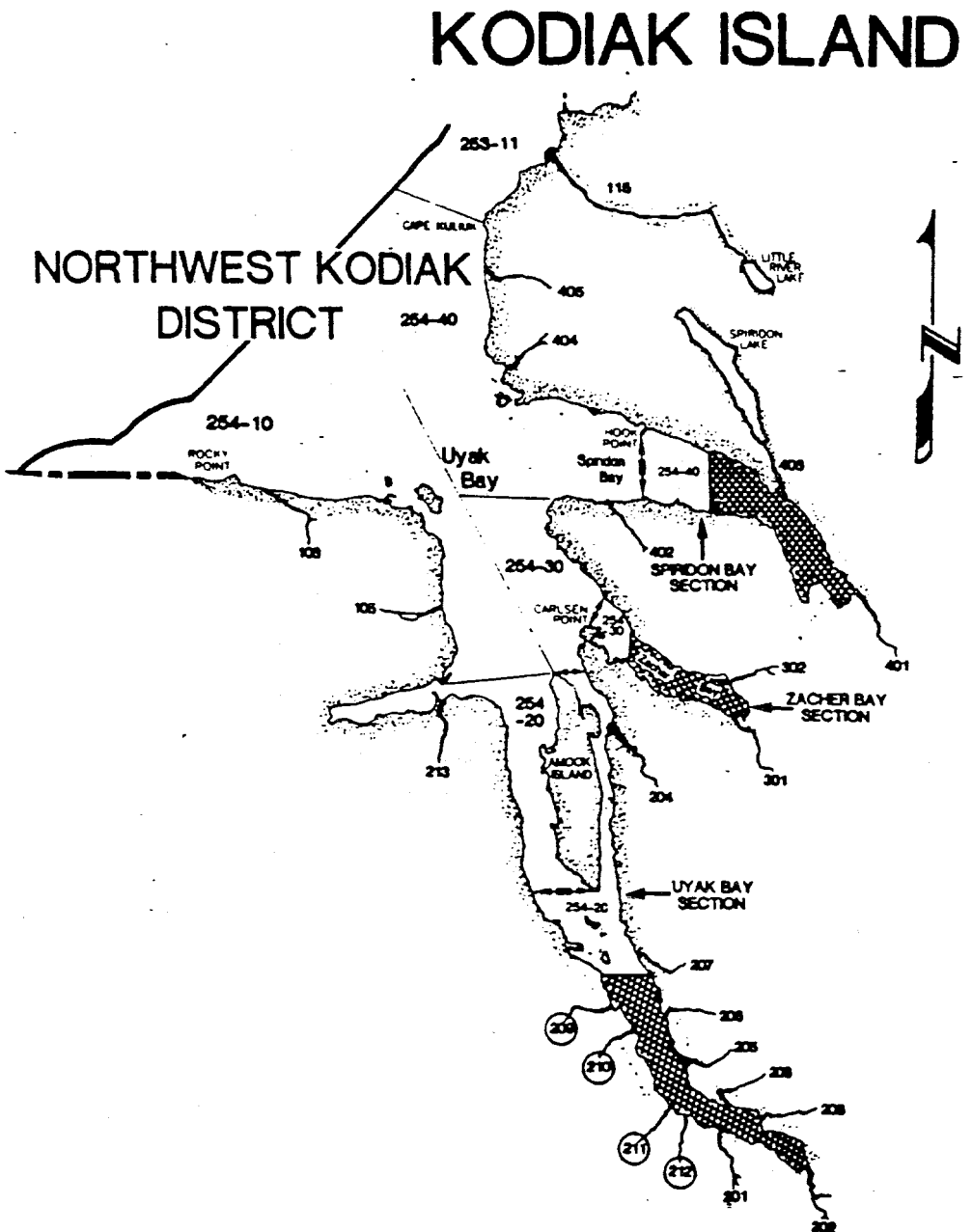
RASPBERRY CAPE SOUTH TO CAPE UGAT



Appendix A.5. Raspberry Cape south to Cape Ugat, A08, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

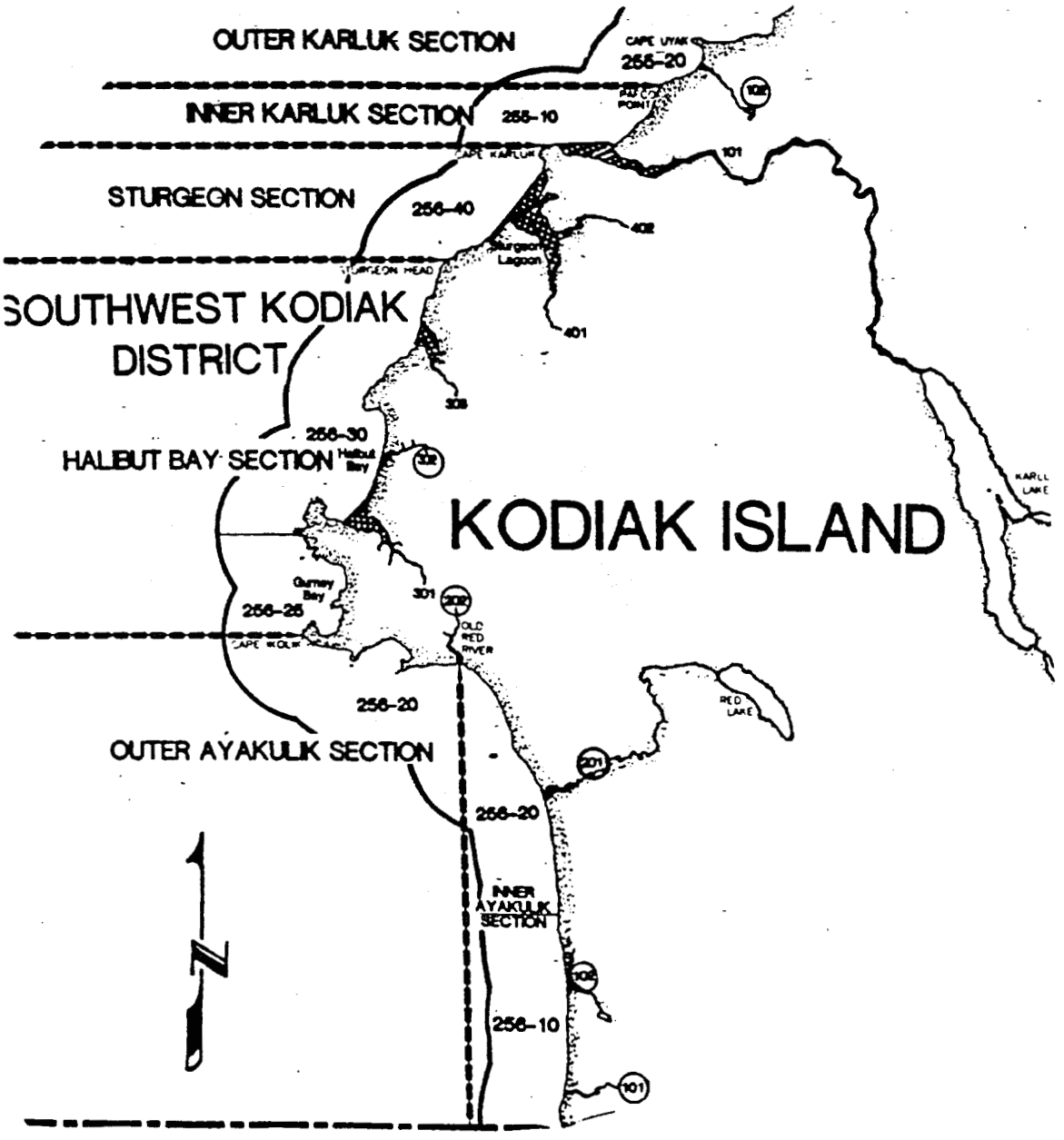
CAPE UGAT SOUTH TO ROCKY POINT



Appendix A.6. Cape Ugat south to Rocky Point, A07, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

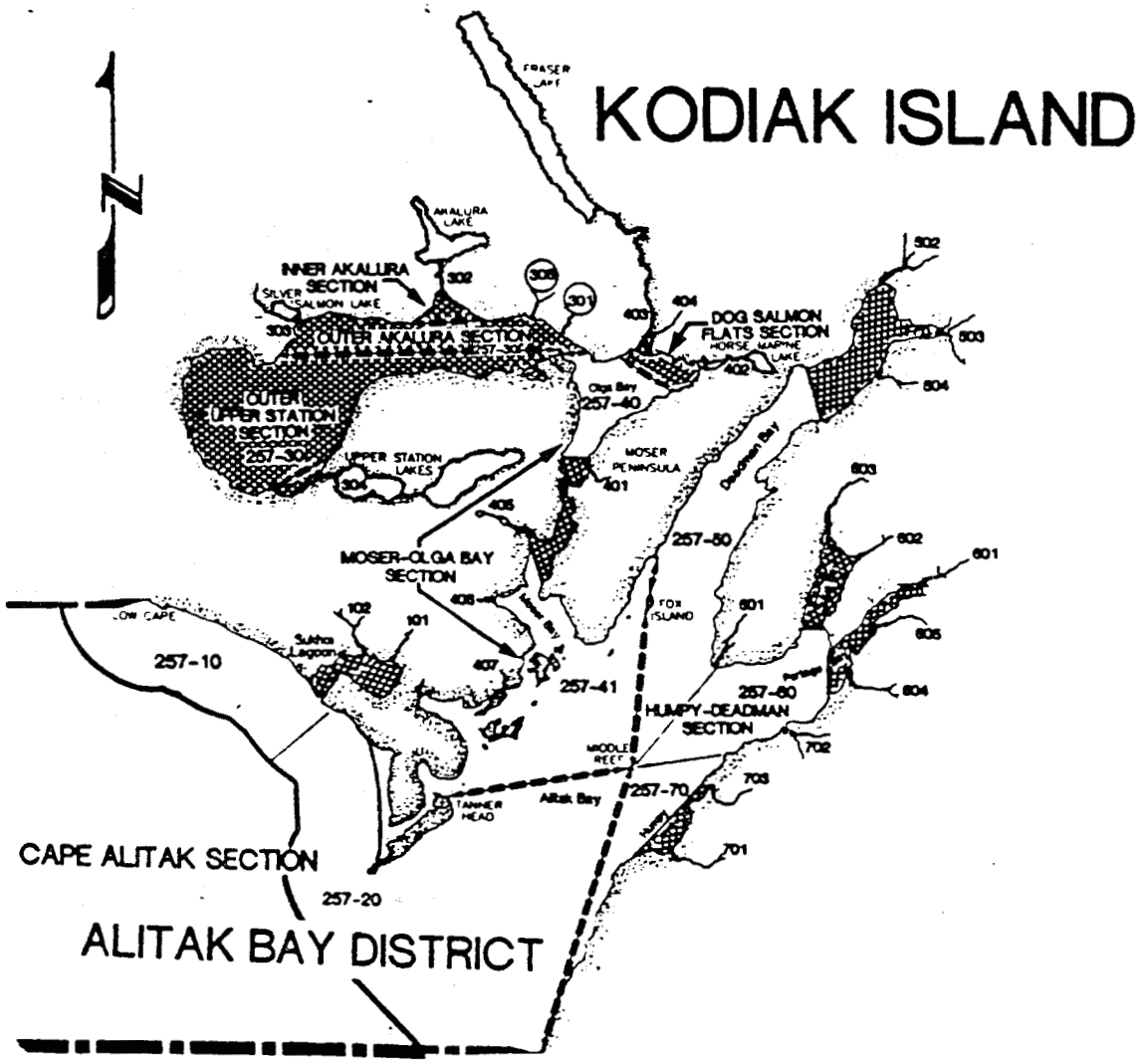
ROCKY POINT SOUTH TO LOW CAPE



Appendix A.7. Rocky Point south to Low Cape, A06, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

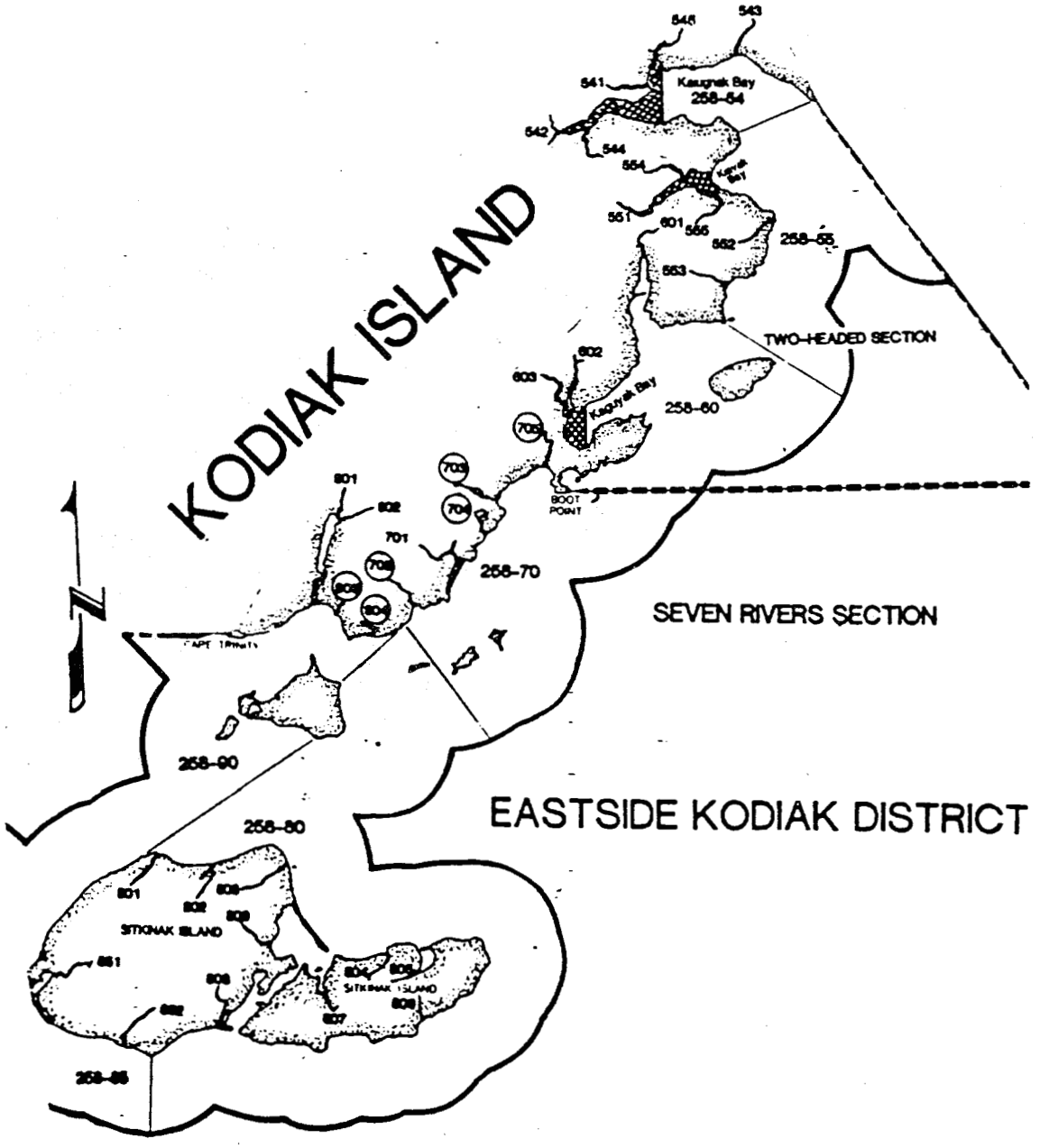
LOW CAPE EAST TO CAPE TRINITY



Appendix A.8. Low Cape east to Cape Trinity, A05, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

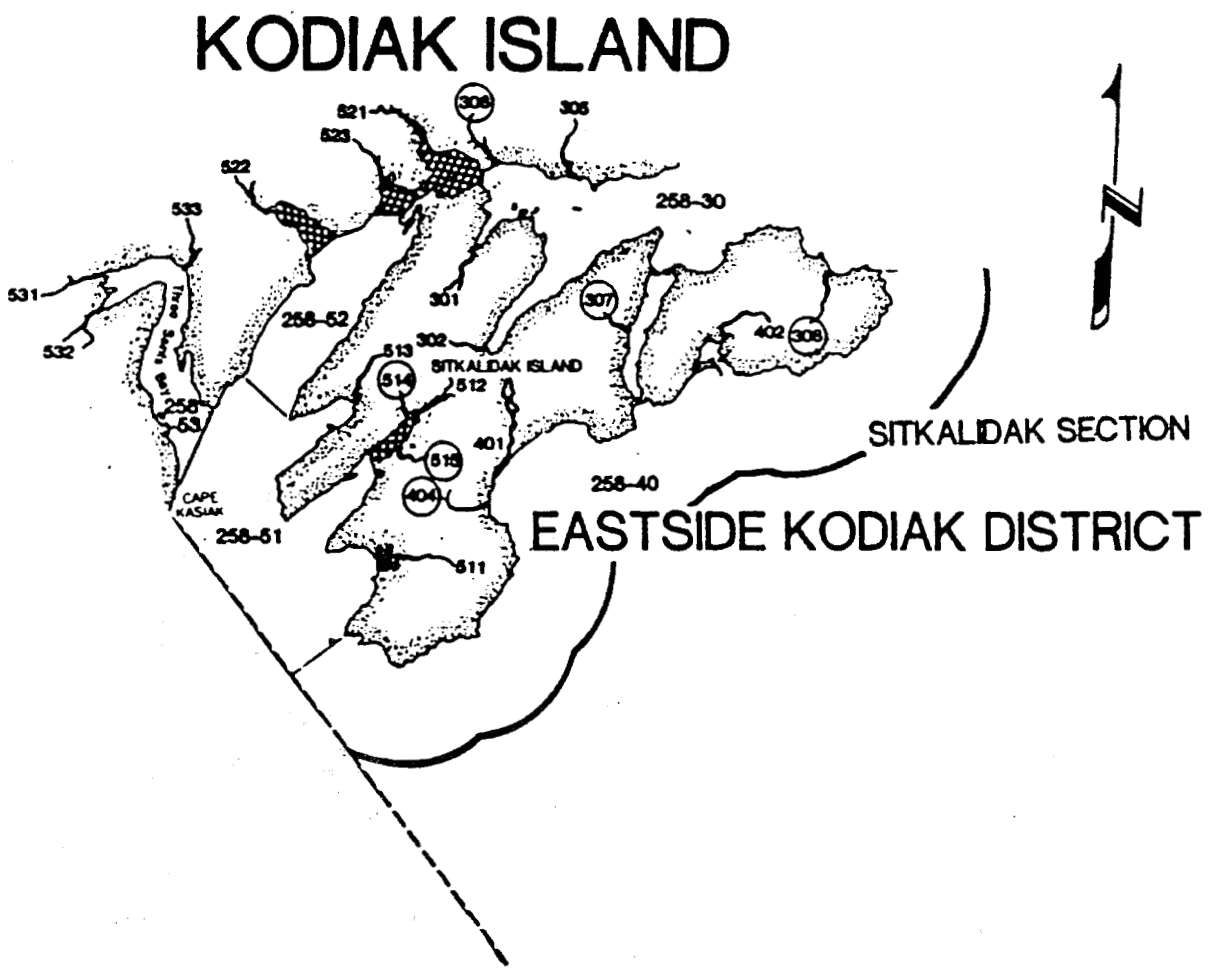
CAPE TRINITY NORTH TO CAPE KASIAK



Appendix A.9. Cape Trinity north to Cape Kasiak, A04, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

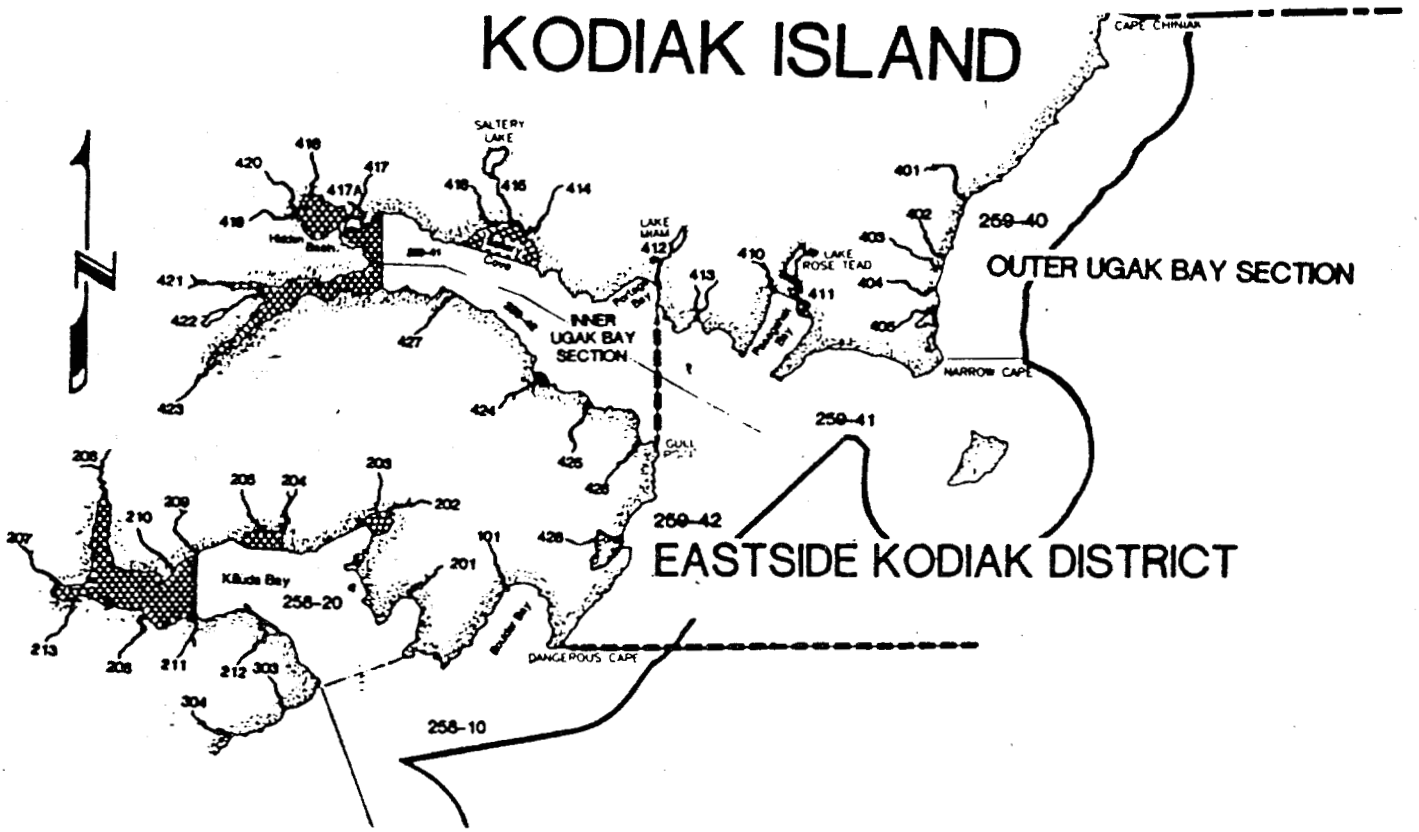
CAPE KASIAK NORTH TO LEFT CAPE



Appendix A.10. Cape Kasiak north to Left Cape, A03, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

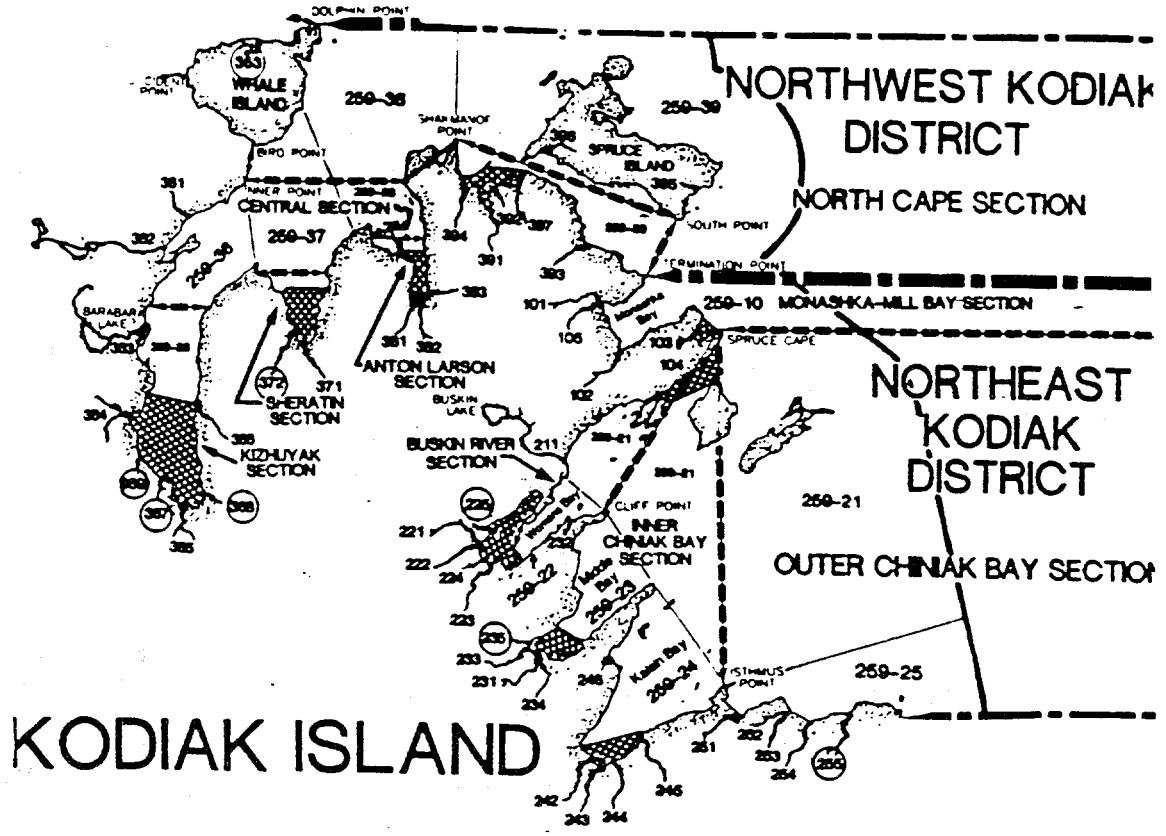
LEFT CAPE NORTH TO CAPE CHINIAK



Appendix A.11. Left Cape north to Cape Chiniak, A02, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

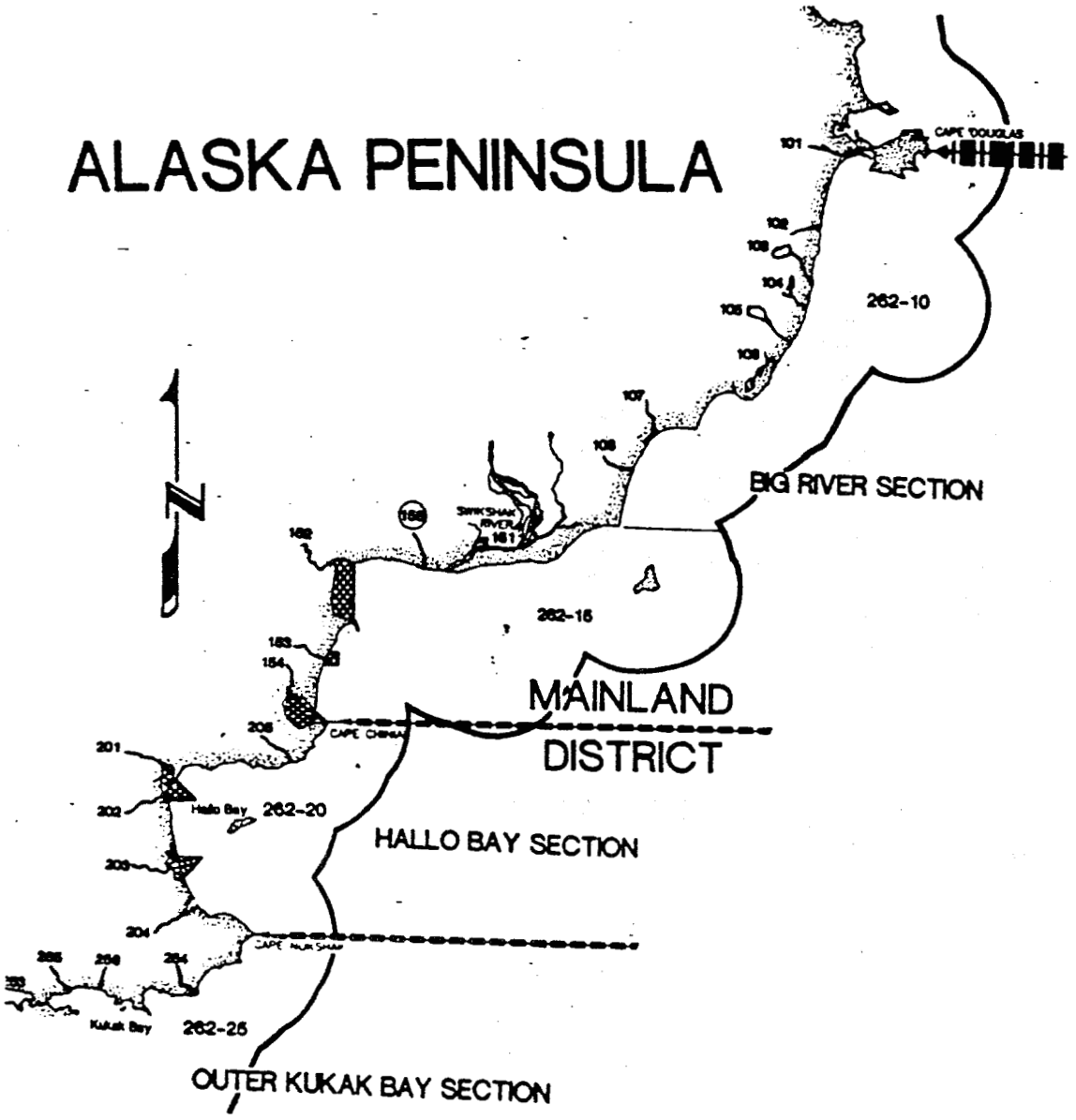
WHALE PASS TO CAPE CHINIAK



Appendix A.12. Whale Pass to Cape Chiniak, A01, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

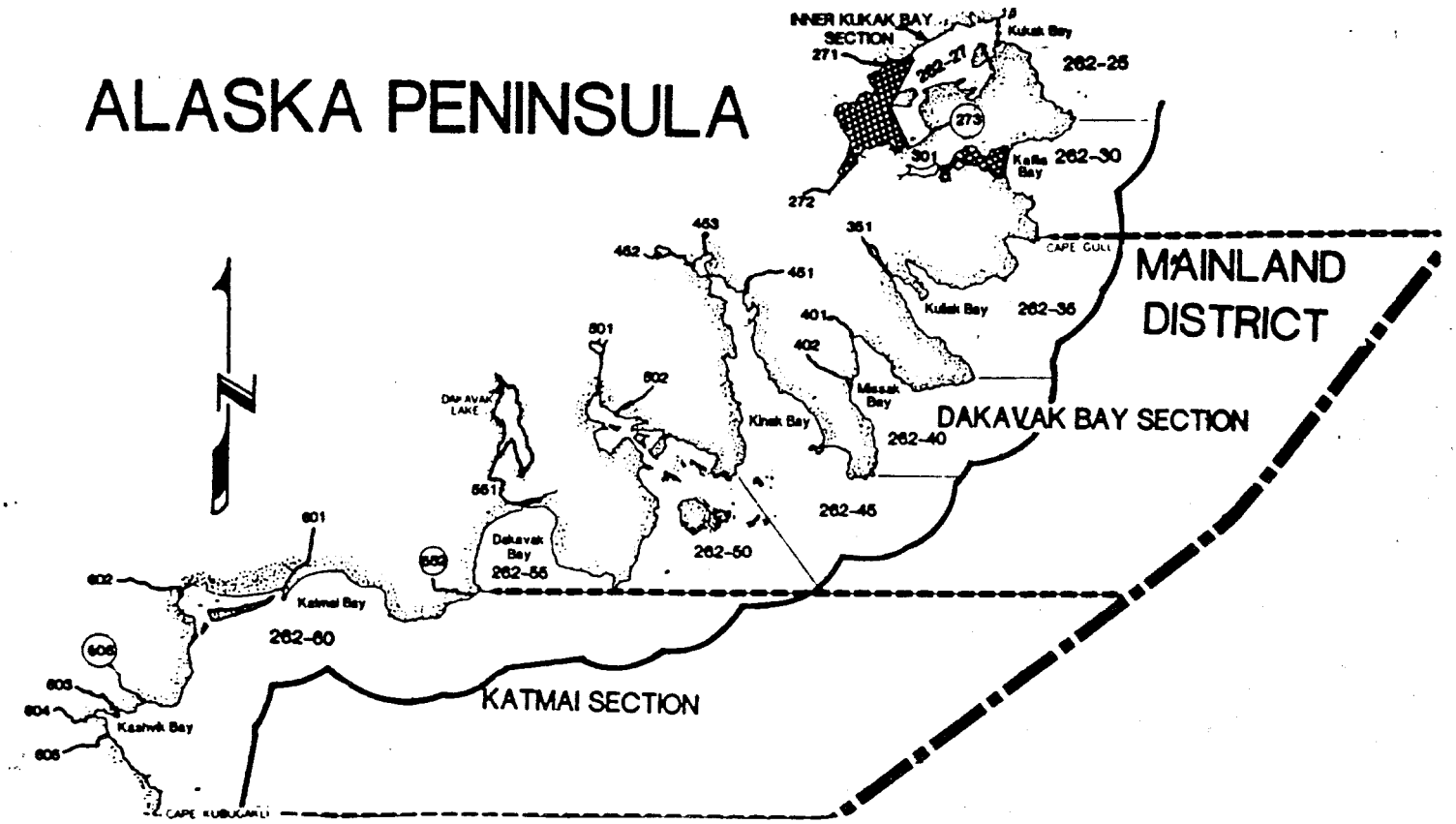
CAPE DOUGLAS SOUTH TO DEVIL'S INLET (KUKAK)



Appendix A.13. Cape Douglas south to Devil's Inlet, B01, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

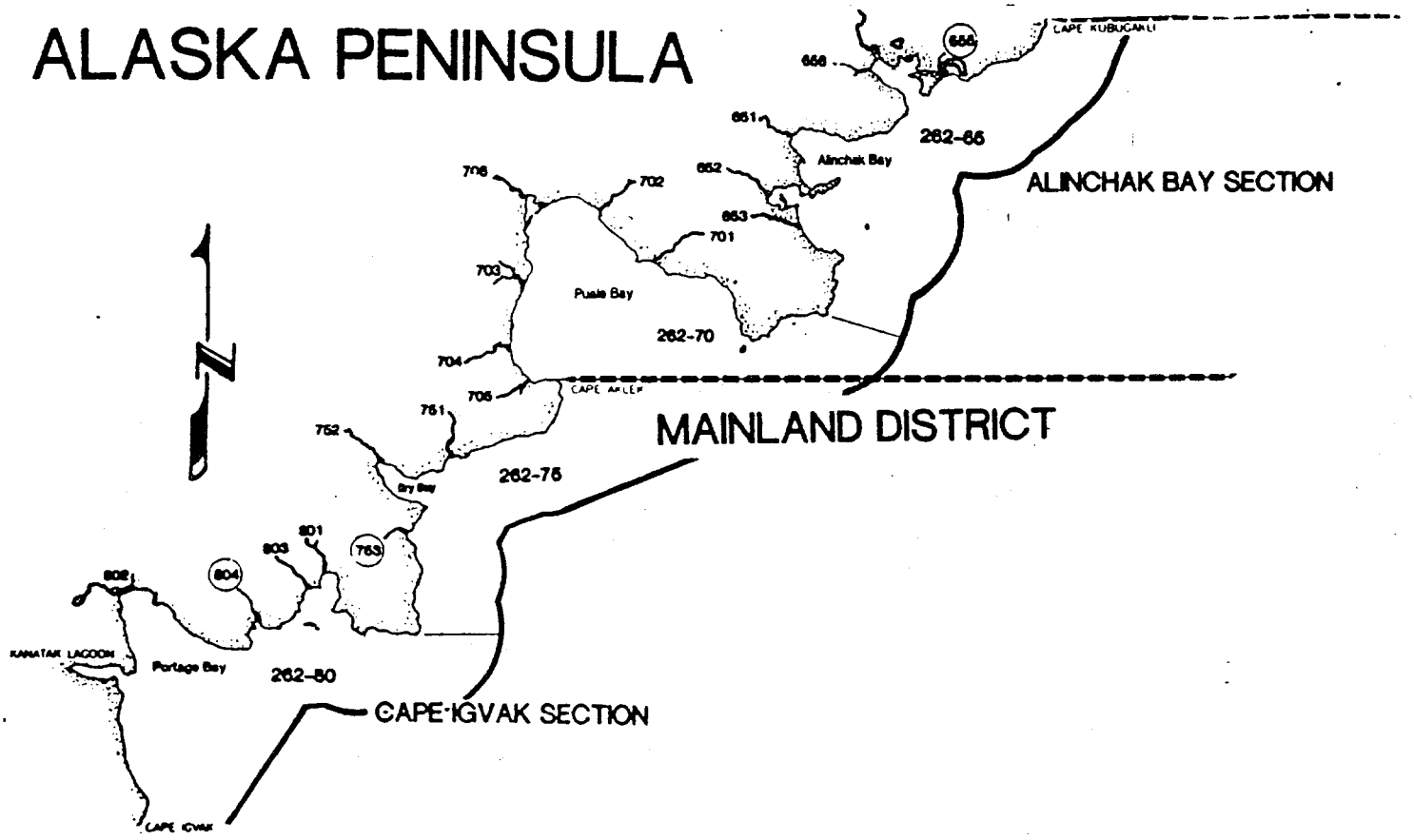
KUKAK BAY SOUTH TO CAPE KUBUGAKLI



Appendix A.14. Kukak Bay south to Cape Kubugakli, B02, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

CAPE KUBUGAKLI SOUTH TO CAPE IGVAK

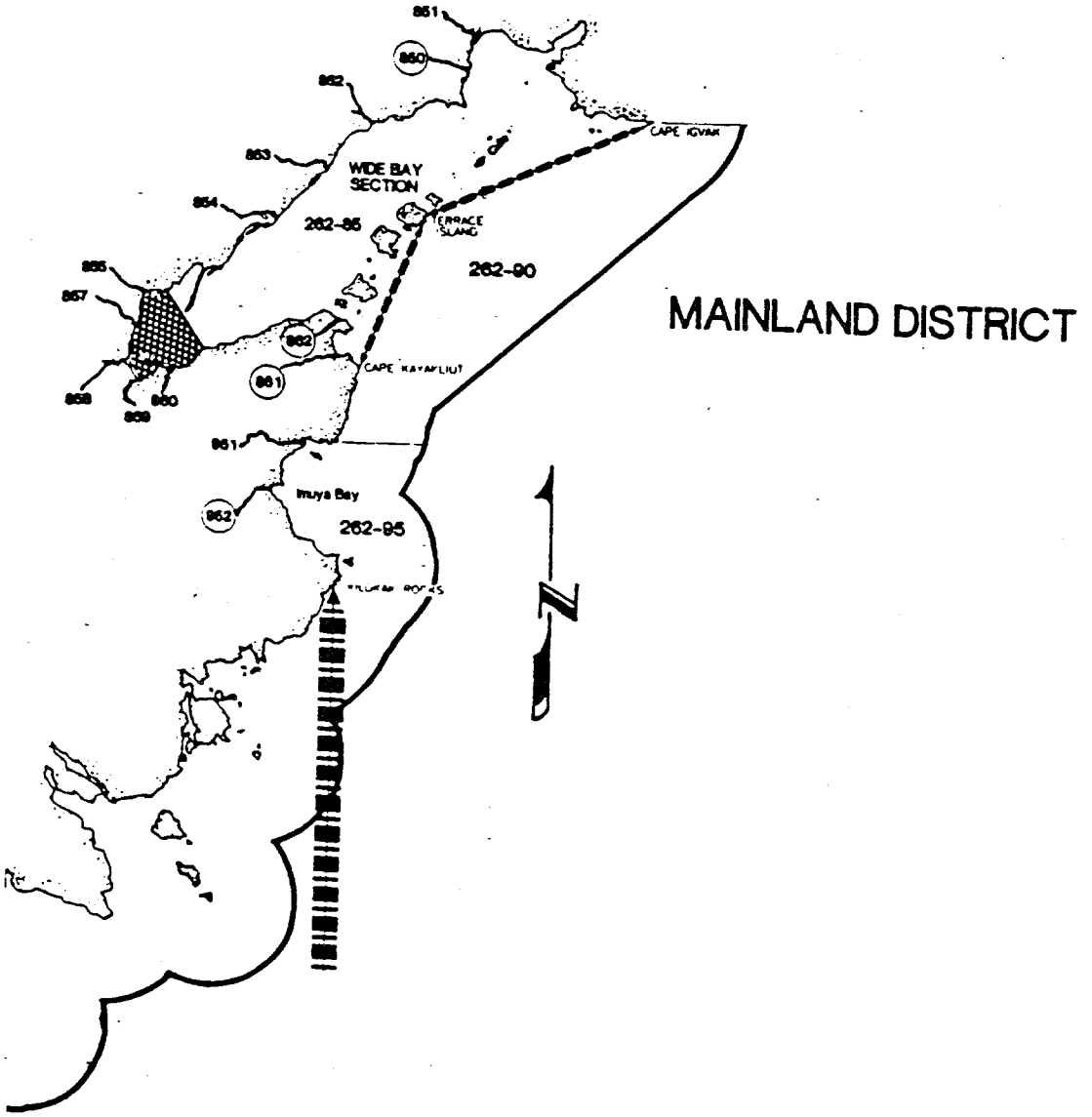


Appendix A.15. Cape Kubugakli south to Cape Igvak, B03, Kodiak Management Area, 1988.

KODIAK MANAGEMENT AREA
SALMON STATISTICAL CHART
USED DURING THE 1988 SEASON

CAPE IGVAK SOUTH TO KILOKAK ROCKS

ALASKA PENINSULA



Appendix A.16. Cape Igvak south to Kilokak Rocks, B04, Kodiak Management Area, 1988.

Appendix B.1. Proposed regulation change #294 to be considered by Alaska State Board of Fisheries, 1988.

PROPOSAL #294 - 5 AAC 39.200. APPLICATION OF FISHERY MANAGEMENT.

Amending the regulation by adding a new subsection (c) to read:

(c) In the commercial salmon fishery, until approved by the Board of Fisheries, the Department shall not allow the interception of fish in one salmon registration area that it anticipates will affect the management, normal harvest patterns, or the relative allocation of fish among various gear types and/or user groups in another salmon registration area.

PROBLEM: New interception fisheries which are not recognized and regulated by the Board of Fisheries are becoming a threat to the long-term stability of the industry, to rational management, and to the short-term economic success of the anticipated harvest area. Unanticipated and unregulated interception of mixed stocks bound for another area makes management and full utilization of stocks in the terminal area impossible. For example, the 1988 Kodiak interception of mixed stocks bound for Cook Inlet was allowed to continue after it was "determined" that further interception of weak Susitna stocks would be "minimal". The results were unanticipated and unnecessary closures of set and drift net fishing to assure a minimal Kasilof River escapement, and the closure of Northern District set net fishing for Susitna stocks.

With the steadily increasing "terminal harvest" management strategies employed by the department, and more efficient harvest methods by all gear types in all areas of the state, this practice of targeting fish headed to spawning grounds in another area can have a significant impact on commercial and sport fishermen, processors, departmental management, and the resource itself in the terminal area.

Interception fisheries present the greatest difficulties for all user groups, the department and the board. They should not be allowed without undergoing a full public hearing process and being sanctioned by the board.

It should be noted that any long-standing fisheries recognized by the board as mixed stock fisheries will not be affected by this proposal.

WHAT WILL HAPPEN IF NOTHING IS DONE? The department, lacking the force of a regulation, will remain reluctant to take any action to enforce the board's policy on mixed stock salmon fisheries.

-Continued-

Short term interception fisheries will become commonplace. As a result of such interceptions, fisheries in the terminal area may be closed or restricted to assure adequate escapement. This would have a severe adverse economic impact on the local economy. If unchecked, new and unregulated interception fisheries could well undermine and stability of the entire industry statewide, as "interceptors" will simply target the next unprotected and unregulated area with a large projected return.

Any area expecting large returns will be looking to areas north, south, east and west for possible interceptions of their fish, and could face two years of disruptive influence before having a chance to present their case to the board.

WHO IS LIKELY TO BENEFIT? Commercial and sport fishermen statewide will be assured that they have an opportunity to participate fully in the harvest of stocks that are returning to spawn in their respective areas. Commercial fishermen who have made substantial investments in local aquaculture associations. Processors and other businesses in the terminal area who rely on pre-season forecasts. Department biologists who will be able to manage the local stocks more effectively, thereby improving the prospects for acceptable escapements.

WHO IS LIKELY TO SUFFER? Those who would like to participate in new and unregulated interception fisheries.

OTHER SOLUTIONS CONSIDERED? UCIDA has also considered petitioning the board to place the Kodiak interception situation on its spring agenda to be reviewed on its own merit. This idea has not been completely rejected; however, the entire interception situation should be addressed on a statewide basis.

The board's biennial review process won the support of commercial fishing groups from most areas. Given that the biennial review process is to continue, it is imperative that a statewide regulation exists that prohibits new interception fisheries unless reviewed by the Board of Fisheries. Otherwise, fishermen in terminal areas will simply have to hope that they have the more aggressive area biologists and legislators with more departmental influence than interception area fishermen.

Proposed by: United Cook Inlet Drift Association and Cook Inlet Coalition (311) (196)

Appendix B.2. Commercial salmon fishing regulations for the Kodiak Management Area, 1988.

KODIAK AREA

CHAPTER 18.—KODIAK AREA

ARTICLE 1.—DESCRIPTION OF AREA

5 AAC 18.001. APPLICATION OF THIS CHAPTER. Requirements set forth in this chapter apply to commercial fishing only, unless otherwise specified. Subsistence fishing regulations affecting commercial fishing vessels or affecting any other commercial fishing activity are set forth in the subsistence fishing regulations in chs. 1 and 2 of this title.

5 AAC 18.100. DESCRIPTION OF AREA. The Kodiak Area includes all waters of Alaska south of a line extending east from Cape Douglas (58°52′ N.lat.), west of 150° W.long., north of 55°30′ N.lat.; and east of a line extending south from the southern entrance of Imuya Bay near Kilokak Rocks (156°20′13″ W.long.).

ARTICLE 2.—FISHING DISTRICTS

5 AAC 18.200. DESCRIPTION OF DISTRICTS AND SECTIONS. (a) Afognak District: all waters of Afognak and Shuyak Islands bounded by a line from Occident Point (57°57′25″ N. lat., 152°51′30″ W. long.), to Last Timber Point (57°58′50″ N. lat., 152°58′55″ W. long.), by the latitude of Dolphin Point on Whale Island (57°59′10″ N. lat.), by the latitude of Raspberry Cape (58°03′35″ N. lat.), by mid-stream Shelikof Straits, and by the latitude of Cape Douglas (58°52′ N. lat.);

(1) Raspberry Straits Section: all waters of Raspberry Straits bounded by the longitude of Dolphin Point on Afognak Island (153°09′ W. long.) and by a line from Head Point to Dolphin Point on Whale Island and a line from Occident Point to Last Timber Point;

(2) Southwest Afognak Section: all waters west of Afognak Island bounded by the latitude of Raspberry Cape, the longitude of Dolphin Point on Afognak Island (153°09′ W. long.) in Raspberry Straits, by the latitude of Cape Paramanof (58°18′20″ N. lat.), and by mid-stream Shelikof Strait;

(3) Northwest Afognak Section: all waters northwest of Afognak Island bounded by the latitude of Cape Paramanof, by a line extending along mid-stream Shuyak Straits and perpendicular to mid-stream Shelikof Strait to Cape Current (58°27′40″ N. lat., 159°29′10″ W. long.), and by mid-stream Shelikof Strait;

(4) Shuyak Island Section: all waters in the vicinity of Shuyak Island bounded by a line extending along mid-stream Shuyak Straits and perpendicular to mid-stream Shelikof Straits to Cape Current, north of a line from Cape Current to Posliedni Point (58°26′ N. lat., 152°19′30″ W. long.), west of the longitude of Posliedni Point, south of the latitude of Cape Douglas, and by mid-stream Shelikof Strait;

(5) Perenosa Bay Section: all waters of Perenosa Bay south of a line extending from Cape Current to Posliedni Point;

(6) Northeast Afognak Section: all waters northeast of Afognak Island bounded by the longitude of Posliedni Point and by the latitude of Pillar Cape (58°09′ N. lat.);

(7) Izhut Bay Section: all waters of Izhut Bay, excluding the Kitoi Bay Section, bounded by a line from Pillar Cape to Peril Cape (58°07′30″ N. lat., 152°16′20″ W. long.);

(8) Kitoi Bay Section: all waters of Kitoi Bay bounded by a line from 58°10′39″ N. lat., 152°17′13″ W. long. to 58°09′32″ N. lat., 152°18′36″ W. long.;

(9) Duck Bay Section: all waters of Duck Bay bounded by the latitude of Pillar Cape, by a line from Pillar Cape to Peril Cape, and by the latitude of Cape Kostromitinof (58°05′05″ N. lat.).

(b) Northwest Kodiak District: all waters of north and west Kodiak Island bounded by the latitude of Termination Point (57°51′15″ N. lat.), by the latitude of Dolphin Point on Whale Island (57°59′10″ N. lat.), by a line from Occident Point (57°57′25″ N. lat., 152°51′30″ W. long.) to Last Timber Point (57°58′50″ N. lat., 152°58′55″ W. long.), by the latitude of Raspberry Cape (58°03′35″ N. lat.), by the latitude of Rocky Point (57°39′45″ N. lat.), and by mid-stream Shelikof Strait;

(1) Anton Larsen Bay Section: all waters of Anton Larsen Bay south of 57°52′18″ N. lat.;

(2) Sheratin Bay Section: all waters of Sheratin Bay south of 57°51′09″ N. lat.;

(3) Kizhuyak Bay Section: all waters of Kizhuyak Bay south of 57°50′ N. lat.;

(4) Terror Bay Section: all waters of Terror Bay and Uganik Bay passages south of 57°50′ N. lat., and east of 153°12′36″ W. long.;

(5) Inner Uganik Bay Section: all waters of the South and East Arms of Uganik Bay south of a line from Rock Point at 57°46′30″ N. lat., 153°29′12″ W.long. to 57°46′20″ N. lat., 153°33′48″ W. long.;

(6) Spiridon Bay Section: all waters of Spiridon Bay east of the longitude of Hook Point (153°46′30″ W. long.);

(7) Zachar Bay Section: all waters of Zachar Bay east of a line from Carlsen Point at 57°34′48″ N. lat., 153°50′ W. long., to a point on the opposite shore at 57°35′42″ N. lat., 153°49′12″ W. long.;

(8) Uyak Bay Section: all waters of Inner Uyak Bay south of the latitude of the southernmost tip of Amook Island (57°25′45″ N. lat., 153°49′51″ W. long.) to the west shore, and south of the latitude of the northernmost tip of Amook Island (56°59′44″ N. lat., 154°01′42″ W. long.) to the east shore;

(9) Central Section: all waters of the Northwest Kodiak District bounded by a line from Termination Point (57°51′15″ N. lat., 152°24′ W. long.), to South Point (57°53′10″

N. lat., 152°22′ W. long), to Ouzinkie Point (57°54′50″ N. lat., 152°31′09″ W. long.), to Shakmanof Point (57°55′30″ N. lat., 152°35′15″ W. long.), to a point at 57°54′12″ N. lat. on the east shore of Kizhuyak Bay; north of 57°52′18″ N. lat. in Anton Larsen Bay; north of 57°51′09″ N. lat. in Sheratin Bay; north of 57°50′ N. lat., and south of the latitude of Inner Point (57°54′06″ N. lat.) in Kizhuyak Bay; west of a line from Inner Point (57°54′06″ N. lat., 152°47′40″ W. long.) to Bird Point (57°55′20″ N. lat., 152°47′25″ W. long.); south of a line from Occident Point (57°57′25″ N. lat., 152°51′30″ W. long.) to Last Timber Point (57°58′50″ N. lat., 152°58′58″ W. long.); south of the latitude of Raspberry Cape (58°03′35″ N. lat.); north of 57°50′ N. lat., and west of 153°12′36″ W. long. in Terror Bay and Uganik Bay passages; north of the line from Rock Point at 57°46′30″ N. lat., 153°29′12″ W. long. to 57°46′20″ N. lat., 153°33′48″ in the South and East Arms of Uganik Bay; west of the longitude of Hook Point (153°46′30″ W. long.) in Spiridon Bay; west of a line from Carlsen Point (57°34′48″ N. lat., 153°50′ W. long.) to 57°35′42″ N. lat., 153°49′12″ W. long. in Zachar Bay; all waters of Inner Uyak Bay north of the latitude of the southernmost tip of Amook Island to the west shore, and north of the latitude of the northernmost tip of Amook Island to the east shore; east of the latitude of Rocky Point (57°39′45″ N. lat.); and by mid-stream Shelikof Strait;

(10) North Cape Section: all other waters of the Northwest Kodiak District.

(c) Southwest Kodiak District: all waters southwest of Kodiak Island bounded by the latitudes of Rocky Point (57°39′45″ N. lat.) and Low Cape (56°59′35″ N. lat.), and by mid-stream Shelikof Strait;

(1) Outer Karluk Section: all waters west of Kodiak Island bounded by the latitude of Rocky Point, the latitude of Pafco Point (57°38′20″ N. lat.), and by mid-stream Shelikof Strait;

(2) Inner Karluk Section: all waters west of Kodiak Island bounded by the latitude of Pafco Point, the latitude of Cape Karluk (57°34′42″ N. lat., 154°30′54″ W. long.), and by mid-stream Shelikof Strait;

(3) Sturgeon Section: all waters southwest of Kodiak Island bounded by the latitude of Cape Karluk, the latitude of Sturgeon Head (57°30′40″ N. lat., 154°37′20″ W. long.), and by mid-stream Shelikof Strait;

(4) Halibut Bay Section: all waters southwest of Kodiak Island bounded by the latitude of Sturgeon Head, the latitude of Cape Ikolik (57°17′26″ N. lat., 154°47′20″ W. long.) and by mid-stream Shelikof Strait;

(5) Outer Ayakulik Section: all waters southwest of Kodiak Island bounded by the latitude of Cape Ikolik, the longitude of Old Red River (stream No. 256-202) (154°37′12″ W. long.), and by mid-stream Shelikof Strait;

(6) Inner Ayakulik Section: all waters southwest of Kodiak Island bounded by the longitude of Old Red River (stream No. 256-202) (154°37′12″ W. long.) and the latitude of Low Cape (56°59′35″ N. lat.).

(d) Alitak Bay District: all waters south of Kodiak Island bounded by the latitude of Low Cape, the latitude of Cape Trinity (56°44'50" N. lat.), and by mid-stream Shelikof Strait;

(1) Cape Alitak Section: all waters bounded by the latitude of Low Cape, the latitude of Cape Trinity, by mid-stream Shelikof Strait, by a line from Cape Trinity (56°44'50" N. lat., 154°08'45" W. long.) to Middle Reef (56°54' N. lat., 154°03' W. long.), and by a line from Middle Reef to Tanner Head at 56°53'14" N. lat., 154°13'38" W. long.;

(2) Humpy-Deadman Section: all waters of Alitak Bay east of a line from Cape Trinity, to Middle Reef, to the southernmost tip of Fox Island (56°59'09" N. lat., 154°01'58" W. long.), and from the northernmost tip of Fox Island (56°59'44" N. lat., 154°01'42" W. long.), to 57°01'09" N. lat., 154°00'51" W. long., to the Moser Peninsula at 57°01'10" N. lat., 154°01' W. long.;

(3) Moser-Olga Bay Section: all waters of Moser and Olga Bays bounded by a line from Tanner Head (56°53'14" N. lat., 154°13'38" W. long.), to Middle Reef (56°54' N. lat., 154°03' W. long.), to the southernmost tip of Fox Island (56°59'09" N. lat., 154°01'58" W. long.), and from the northernmost tip of Fox Island (56°59'44" N. lat., 154°01'42" W. long.), to 57°01'09" N. lat., 154°00'51" W. long., to the Moser Peninsula at 57°01'10" N. lat., 154°01' W. long., and by a line from Stockholm Point (57°07'40" N. lat., 154°06'36" W. long.) to the opposite shore at 57°07'40" N. lat., 154°04'50" W. long., excluding the Dog Salmon Flats section;

(4) Dog Salmon Flats Section: all waters of Lower Olga Bay northeast of a line from 57°06'27" N. lat., 154° W. long. to the opposite shore at 57°07'33" N. lat., 154°03' W. long.;

(5) Outer Upper Station Section: all waters of Upper Olga Bay south of a line from 57°07'40" N. lat., 154°23'06" W. long., to 57°07'49" N. lat., 154°06'36" W. long., to Stockholm Point, excluding the Inner Upper Station Section;

(6) Inner Upper Station Section: all waters of Upper Olga Bay south of a line from 57°03'27" N. lat., 154°23'27" W. long. to 57°04'12" N. lat., 154°20'33" W. long.;

(7) Outer Akalura Section: all waters of Upper Olga Bay north of a line from 57°07'40" N. lat., 154°23'06" W. long., to 57°07'49" N. lat., 154°06'36" W. long., to Stockholm Point, excluding the Inner Akalura Section.

(8) Inner Akalura Section: all waters of Upper Olga Bay north of a line from 57°08'40" N. lat., 154°15'18" W. long. to 57°18'45" N. lat., 154°10'54" W. long.

(e) Eastside Kodiak District: all waters south and east of Kodiak Island bounded by the latitude of Cape Trinity (56°44'50" N. lat.), by the latitude of Cape Chiniak (57°37' N. lat.), and by mid-stream Shelikof Strait;

(1) Seven Rivers Section: all waters east of Kodiak Island bounded by the latitude of Cape Trinity, by the latitude of Boot Point (56°50' N. lat.) and a line extending seaward

144° from Cape Kasiak (57°04' N. lat., 153°29'38" W. long.), and by mid-stream Shelikof Strait;

(2) Two-Headed Section: all waters east of Kodiak Island bounded by the latitude of Boot Point and by a line extending seaward 144° from Cape Kasiak;

(3) Sitkalidak Section: all waters east of Kodiak Island bounded by a line extending seaward 144° from Cape Kasiak and by the latitude of Dangerous Cape (57°16'36" N. lat.);

(4) Inner Ugak Bay Section: all waters of Ugak Bay west of the longitude of Gull Point (152°06'W. long.);

(5) Outer Ugak Bay Section: all waters of Kodiak Island bound by the longitude of Gull Point, the latitude of Dangerous Cape, and the latitude of Cape Chiniak (57°37' N. lat.).

(f) Northeast Kodiak District: all waters northeast of Kodiak Island bounded by the latitude of Cape Chiniak (57°37' N. lat.), and the latitude of Termination Point (57°51'15" N. lat.);

(1) Outer Chiniak Bay Section: all waters north of Kodiak Island bounded by the latitude of Cape Chiniak and the longitude of Isthmus Point (152°19'30" W. long.);

(2) Inner Chiniak Bay Section: all waters of Chiniak Bay bounded by the longitude of Isthmus Point and the latitude of Spruce Cape (57°49'36" N. lat.), excluding the Buskin River Section;

(3) Buskin River Section: all waters of Chiniak Bay west of a line from Cliff Point (57°43'30" N. lat., 152°26'45" W. long.) to Spruce Cape (57°49'36" N. lat., 152°19'24" W. long.);

(4) Monashka/Mill Bay Section: all waters north of Kodiak bounded by the latitude of Spruce Cape and the latitude of Termination Point.

(g) Mainland District: all waters along the southside of the Alaska Peninsula bounded by the latitude of Cape Douglas (58°52' N. lat.), mid-stream Shelikof Strait, and west of the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (57°11'22" N. lat., 156°20'13" W. long.);

(1) Big River Section: all waters bounded by the latitude of Cape Douglas, the latitude Cape Chiniak on the mainland (58°31' N. lat.), and by mid-stream Shelikof Strait;

(2) Hallo Bay Section: all waters of Hallo Bay bounded by the latitude of Cape Chiniak on the mainland, the latitude of Cape Nukshak (58°23'30" N. lat.), and by mid-stream Shelikof Strait;

(3) Outer Kukak Bay Section: all waters bounded by the latitude of Cape Nukshak and the latitude of Cape Gull (58°13′ N. lat.), excluding the Inner Kukak Section;

(4) Inner Kukak Bay Section: all waters of Kukak Bay west of 154°11′ W. long.;

(5) Dakavak Bay Section: all waters bounded by the latitude of Cape Gull, the latitude of the southern entrance of Dakavak Bay (58°01′ N. lat.), and by mid-stream Shelikof Strait;

(6) Katmai Section: all waters bounded by the latitude of the southern entrance of Dakavak Bay, the latitude of Cape Kubugakli (57°53′30″ N. lat.), and by mid-stream Shelikof Strait;

(7) Alinchak Section: all waters bounded by the latitude of Cape Kubugakli, the latitude of Cape Aklek (57°41′24″ N. lat.), and by mid-stream Shelikof Strait;

(8) Cape Igvak Section: all waters bounded by the latitude of Cape Aklek (57°41′24″ N. lat.), the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (156°20′13″ W. long.), and by mid-stream Shelikof Strait, excluding the Wide Bay Section;

(9) Wide Bay Section: all waters of Wide Bay enclosed by a line from Cape Kayakliut (57°17′35″ N. lat., 156°19′ W. long.) to the easternmost tip of Terrace Island at 156°15′ N. lat., to Cape Igvak (57°26′ N. lat., 156°01′ W. long.).

5 AAC 18.201. SEAWARD BOUNDARY OF DISTRICTS. The seaward boundary of districts and sections in Shelikof Straits is a line all points of which are equidistant from the east and west shore of Shelikof Strait.

ARTICLE 3.—SALMON FISHERY

5 AAC 18.310. FISHING SEASONS. (a) Salmon may be taken only from June 5 through October 31.

5 AAC 18.320. FISHING PERIODS. (a) Salmon may be taken only during periods established by emergency order.

5 AAC 18.330. GEAR. (a) In the Afognak District salmon may be taken only by purse seines and beach seines.

(b) In the Northwest Kodiak District salmon may be taken only by purse seines and beach seines, except that in the Central Section, salmon may also be taken by set gill nets.

(c) In the Southwest Kodiak District salmon may by taken only by purse seines and beach seines.

(d) In the Alitak District salmon may be taken only by purse seines and beach seines except that:

(1) in the Moser-Olga Bay Section salmon may be taken only by set gill nets;

(2) in the Dog Salmon Flats Section salmon may be taken only by set gill nets;

(3) in the Outer Upper Station Section salmon may be taken only by set gill nets;

(4) in the Inner Upper Station Section salmon may be taken only by set gill nets;

(5) in the Outer Akalura Section salmon may be taken only by set gill nets;

(6) in the Inner Akalura Section salmon may be taken only by set gill nets;

(7) after September 4, salmon may also be taken by purse seines and beach seines in the entire Alitak District.

(e) In the East Kodiak District salmon may be taken only by purse seines and beach seines.

(f) In the Northeast Kodiak District salmon may be taken only by purse seines and beach seines.

(g) In the Mainland District salmon may be taken only by purse seines and beach seines.

5 AAC 18.331. GILL NET SPECIFICATIONS AND OPERATIONS. (a) Except as provided for in (e) of this section. A CFEC permit holder may operate no more than 150 fathoms of set gill net in the aggregate, nor more than two set gill nets.

(b) Seine webbing may be used on the shoreward end of a set gill net and the length of the seine webbing used may extend no more than 50 fathoms seaward of the beach at the lowest tide of the current day, except that

(1) in the Moser-Olga Bay, Inner Dog Salmon, Inner Akalura, Outer Akalura, Outer Upper Station, and Inner Upper Station Sections of the Alitak District, seine webbing may be used only from the high tide mark seaward, and no portion of the seine web may be in water deeper than five feet at the lowest tide of the current day;

(2) in that portion of the Moser-Olga Bay Section of the Alitak District south of a line from Bun Point to the opposite shore at 56°57′59″ N. lat., 154°07′35″ W. long., seine webbing may be used only from the high tide mark seaward, and must meet one of the following requirements:

(A) no portion of the seine web may be in water deeper than five feet at the lowest tide of the current day; or

(B) the length of seine webbing used may be no more than 20 fathoms per set.

(c) Set gill nets must be operated in substantially a straight line, except that no more than 25 fathoms of a set gill net may be used as a hook. A hook may be used in any configuration.

(d) The shoreward end of a set gill net must be attached to a point of land which is exposed at the lowest tide of the day or to a rock which is within 5 feet of the surface at the lowest tide of the day. A rock is any naturally located or created geological formation which shows no evidence of having been located or created through man-made means. A set gill net may not be attached to the beach inside of closed waters.

(e) Two salmon set gill net CFEC permit holders may form a joint venture and combine their gear under the following conditions:

(1) a permit must be obtained from a local representative of the department before a joint venture may start operations;

(2) only one permit per year will be issued for each joint venture;

(3) the permit must be signed by both CFEC permit holders and each must have a copy of the permit readily available for inspection;

(4) the permit may be canceled by the department upon the request of one of the joint venture operators;

(5) the gear and site markers required by 5 AAC 39.280 must bear the five-digit CFEC permit serial number of both permit holders;

(6) no single set gill net may be more than 150 fathoms in length;

(7) no joint venture may operate more than three set gill nets; and

(8) both parties of the joint venture are legally responsible for the operation of all gear of the joint venture.

(f) No set gill net gear, including but not limited to running lines, shore leads, anchors, and buoys, may be placed in the water nor may signs be placed on the beach prior to emergency order openings of the closed waters areas of Upper Olga Bay described in 5 AAC 18.350(a)(1)(B)(i).

5 AAC 18.332. SEINE SPECIFICATIONS AND OPERATION. (a) No purse seine and hand purse seine may be less that 100 fathoms or more than 200 fathoms in length. No seine may be less than 100 meshes in depth. At least 50 fathoms of a seine must be 150 meshes in depth.

(b) One lead no more than 100 fathoms in length may be used with each purse seine or hand purse seine. The aggregate length of a seine and lead may not exceed 250 fathoms. Leads must be removed from the water within two hours after a season or fishing period closure. Each lead must have at each end a buoy, cork, or float plainly and legibly marked with the operator's five-digit CFEC permit serial number.

(c) Beach seines no less than 100 fathoms nor more than 225 fathoms in length may be used.

(d) Beach seines may not be less than 100 meshes in depth.

(e) When an anchor is used during the operation of a purse seine, hand purse seine or beach seine, only the shoreward end of the seine or lead may be anchored; the seine shall be attached to the licensed vessel, and the vessel may not be anchored.

(f) In the Mainland District, it is unlawful to take salmon with the assistance of an aircraft directing the operation of the seine gear.

5 AAC 18.335. MINIMUM DISTANCE BETWEEN UNITS OF GEAR. No part of a set gill net may be set or operated within 900 feet of any part of another set gill net, or be attached to the beach within 900 feet of another net, except that in the Dog Salmon Flats, Outer Upper Station, Inner Upper Station, Outer Akalura, and Inner Akalura Sections there is not minimum distance between units of set gill net gear.

5 AAC 18.350. CLOSED WATERS. (a) Salmon may not be taken in the following waters:

(1) Alitak District.

(A) Humpy Cove: all waters east of a line from the northern entrance of Seaborg Cove at 56°53'45" N.lat., 153°58'48" W.long., to a point approximately two and three-quarters miles northeast of Hawk Point at 56°51' N.lat., 154°03'39" W.long.;

(B) Olga Bay.

(i) Upper Olga Bay: north and west of a line from Stockholm Point at 57°07'40" N.lat., 154°06'36" W.long., to the opposite shore at 57°07'40" N.lat., 154°04'50" W.long.;

(ii) Horse Marine: northeast of a line from 57°06'27" N.lat., 154° W.long.; to 57°07'33" N.lat., 154°03' W.long.;

(iii) Olga Narrows: south of 57°04'23" N.lat., and north of a line from 57°01'27" N.lat., 154°08'32" W.long. running east to a point 75 fathoms from the mean low tide mark to 57°11" N.lat., 154°07'58" W.long.;

(C) Portage Bay

(i) Southeast Arm: east of the longitude of Bert Point;

(ii) Sulua Bay: north of 56°58'36" N.lat.;

(D) Deadman Bay: north of a line from 57°05'30" N.lat., 153°50'54" W.long., to 57°07'05" N.lat., 153°51'44" W.long.;

(E) Sukhoi Lagoon: in the bay and the lagoon;

(2) Southwest Kodiak District

(A) all waters east of the terminus of the Ayakulik River (Red River);

(B) all waters east of the terminus of the unnamed stream at 57°16'21" N.lat., 154°37'10" W.long.;

(C) all waters east of a line from 57°33'48" N.lat., 154°30'54" W.long., to 57°31'26" N.lat., 154°34'36" W.long., including Sturgeon Lagoon;

(D) all waters of Grant's Lagoon and Halibut Bay Lagoon;

(E) that portion of the Southwest Kodiak District enclosed by a line from Cape Karluk (57°34'42" N. lat., 154°30'54" W. long.), to 57°34'42" N. lat., 154°26'36" W. long., to Karluk Spit at 57°34'37" N. lat., 154°26'30" W. long.;

(5) Northwest Kodiak District

(A) Uyak Bay: south of 57°23'06" N.lat.;

(B) Zachar Bay: within a line from 57°33'36" N.lat., 153°47'42" W.long. Northerly to a point at 57°34'36" N.lat., 153°47'30" W.long.;

(C) Spiridon Bay: east of 153°42'24" W.long.;

(D) Little River: within 500 yards of the terminus;

(E) Cannon's Lagoon (Cambell's): in the lagoon and 500 yards from its mouth;

(F) Uganik Bay

(i) South Arm: south of 57°39'44" N.lat.;

(ii) East Arm (Mush Bay): within a line from Packers Spit at 57°44'30" N.lat., 153°29'54" W.long., the opposite shore at 57°42'30" N.lat., 153°28'36" W.long., and including the lagoon behind Packers Spit;

(G) North Uganik Passage: south of 57°49'30" N.lat., to 57°48'30" N.lat.;

(H) Terror Bay: all waters of the bay south of 57°46'30" N.lat.;

(I) Kizhuyak Bay

(i) Barabara Cove: within one-half statute mile of the stream terminus;

(ii) all waters south of a line extending from Pestchani Point to a point on the opposite shore at 57°47' N.lat., 152°54' W.long.;

(J) Sharatin Bay: south of 57°50'41" N.lat.;

(K) Soldier's Bay: within a line from Otmeloi Point to Entrance Point to the southern tip of Low Island to Seredni Point;

(L) Anton Larsen Bay: south of 57°51'54" N.lat.;

(M) Ouzinkie Harbor: all waters of Ouzinkie Harbor north of a line from 57°55'10" N. lat., 152°36' W. long. to 57°55'03' N. lat., 152°29'20" W. long.;

(N) Monks Lagoon: all waters of the lagoon northwest of a line between ADF&G regulatory markers located on both sides of the entrance to the lagoon;

(6) Northeast Kodiak District

(A) Mill Bay and all those waters bounded by a line from Spruce Cape to the northernmost point of Woody Island, to the northernmost point of Holiday Island, to the northernmost point of Near Island, to the opposite shore on Kodiak Island at 57°47'25" N.lat., 152°23'23" W.long.;

(B) Women's Bay: all waters inside a line from the tip of Nyman Peninsula (57°43'18" N. lat., 152°31'25" W. long.), to the northeastern tip of Mary's Island (57°42'27" N. lat., 152°31'52" W. long.) to the southeastern shore of Women's Bay at 57°42' N. lat., 152°31'23" W. long.;

(C) Middle Bay: all waters south of a line from 57°39'58" N.lat., 152°29'15" W.long., to the opposite shore at 57°39'30" N.lat., 152°28' W.long.;

(D) Kalsin Bay: all waters south of a line from a bluff on the east shore at 57°36'30" N.lat.,
152°24'30" W.long., to the opposite shore at the southwest corner of the bay at 57°36'30" N.lat., 152°28'06" W.long.;

(7) Eastside Kodiak District

(I) Ugak Bay

(i) west of 152°52'30" W.long.;

(ii) Eagle Harbor: within one-half statute mile of the terminus of Eagle River;

(iii) Gull Cape Lagoon: in the lagoon;

(iv) Saltery Cove: all waters north of a line from a point at 57°29' N.lat., 152°43'06" W.long., to a point on the opposite shore at 57°29'48" N.lat., 152°47'42" W.long.;

(v) Pasagshak River (No. 259-411): within 1000 yards from the terminus;

(J) Kiliuda Bay

(i) west of 153°03'36" W.long.;

(ii) Dog Bay: north of a line from Coxcomb Point to Shearwater Point;

(K) Shearwater Bay: north of a line from 57°20'23" N.lat., 152°52'47" W.long., to 57°20'45" N.lat., 152°53'30" W.long.;

(L) Sitkalidak Strait: north of a line at the latitude of Old Harbor Village (57°12'06" N. lat.) and west of 153°12'48" W.long.;

(M) Barling Bay: inside a line from 57°10'45" N.lat., 153°21'47" W.long., to 57°11'27" N.lat., 153°20'24" W.long.;

(N) Kaiugnak Bay: west of 153°39'32" W.long.;

(O) Kiavak Bay: in the lagoon and 500 yards from its mouth;

(P) Kaguyak Bay: west of 153°45'07" W.long.;

(Q) Seven Rivers Cove (includes stream no. 258-701): west of a line from 56°47'30" N.lat., 153°52'36" W.long. to 56°46'54" N.lat., 153°54' W.long.;

(R) Natalia Bay Lagoon: in the lagoon inside of 153°19'06" W.long.;

(8) Afognak District

(A) Kazakof Bay (Danger Bay): north of 58°10'54" N.lat.;

(B) Kitoi Bay: west of a line from 58°10'39" N.lat., 152°17'13" W.long., to 58°09'32" N.lat., 152°18'36" W.long.;

(C) Ruth Bay (Izhut): west of 152°18'33" W.long.;

(D) Seal Bay: south of 58°21'38" N.lat., in the inner West Bay;

(E) Pauls Bay (Perenosa): within one-half statute mile of the terminus of Pauls Creek;

(F) Discoverer Bay: south of 58°19'06" N.lat.;

(G) Paramanof Bay

(i) East Arm: east of 152°45' W.long.;

(ii) South Arm: south of 58°15'57" N. lat.;

(iii) Thorsheim Bay (includes stream no. 251-302): south of a line from 58°17'12" N.lat., 152°50'24" W.long. to 58°17'08" N.lat., 152°50'42" W.long.

(iv) Long Lagoon Bay (includes stream no. 251-301): south of a line from 58°16'28" N.lat., 152°53'21" W.long. to 58°16'24" N.lat., 152°53'11" W.long.

(H) Malina Bay: east of 152°55' W.long.;

(I) Afognak Bay: north of a line from Otrubistoi Point to Settlement Point;

(9) Mainland District

(A) Swikshak Lagoon: all waters of the lagoon;

(B) Kukak Bay: all waters west of a line from a point at 58°18'52" N.lat., 154°16'32" W.long., then to a point at 58°18'45" N.lat., 154°16'05" W.long., then to a point at 58°17'18" N.lat., 154°17'23" W.long., then to a point at 58°15'56" N.lat., 154°16'29" W.long.

(C) Kaflia Bay: within one statute mile outside the entrance of the outer lagoon;

(D) Wide Bay: west of a line from 156°28'42" W.long., 57°17'55" N.lat., to 156°31'59" W.long., 57°19'48" N.lat.;

(E) Chiniak Lagoon Creek (stream no. 262-154): all waters enclosed by a line from Cape Chiniak (58°31' N.lat., 153°54'30" W.long.) to a point on Village Beach approximately 500 yards from the entrance to Chiniak Lagoon;

(F) all waters of Big River (stream no. 262-152) flats west of 153°52'20" W.long.

(G) Hallo Bay

(i) Ninagiak River: inside of a line running in a southeasterly direction from a point approximately 500 yards north of the stream terminus and a line running in an easterly direction from a point approximately 500 yards south of the stream terminus:

(ii) unnamed stream (ADF&G stream no. 262-203): inside of a line running in an easterly direction from a point approximately 500 yards north of the stream terminus and a line running in a northeasterly direction from a point approximately 500 yards south of the stream terminus;

(H) Village Creek (stream no. 262-153): between two parallel lines that start at points located at higher high water beginning at approximately 500 yards north and 500 yards south of the stream terminus and extend east to mid-stream of Shelikof Strait;

(I) Kinak Bay (Kinak Creek, no. 262-451): in the lagoon and 500 yards from its mouth;

(10) within the designated freshwater salmon streams and rivers of the Kodiak Area, and all saltwater within 500 yards of all points of a straight line extending between the seaward extremities of the exposed tideland banks, or as marked by ADF&G regulatory markers. The provisions of 5 AAC 39.290 do not apply to the Kodiak Area. Freshwater salmon streams and rivers are those identified annually on a Kodiak Area Salmon Stream Chart available from the department.

(b) Where regulatory markers have been deployed by the department to aid fishermen in determining closed waters locations listed in this section, the markers will be placed either as close as possible to the described locations or in a location deemed necessary by the department. If the location of a regulatory marker is in conflict with the closed waters listed in this section, it is illegal to fish on the streamward side of the marker.

5 AAC 18.355. SALMON PROCESSOR AND BUYER REPORTING REQUIREMENTS. The operator of a floating salmon processing vessel or tender, or a shorebased processing operation, and a company employing aircraft used for transporting salmon, shall report in person, or by radio or telephone, to a local representative of the department located in the management area of intended operation before the start of processing or buying operations. The report must include the location and the date of intended operation, and identify and describe each vessel or other method of transport employed in hauling or processing salmon.

5 AAC 18.360. CAPE IGVAK SALMON MANAGEMENT PLAN. (a) In years when a harvestable surplus is beyond escapement goals, for the first (Black Lake) and second (Chignik Lake) runs of Chignik River system sockeye salmon is expected to be less than 600,000, there will be no commercial salmon fishery allowed in the Cape Igvak section, as described in 5 AAC 18.200(i)(2) until a harvest of 300,000 sockeye salmon in the Chignik Area, as described in 5 AAC 15.100, is achieved. After July 8, and after at least 300,000 sockeye salmon have been harvested in the Chignik area, and if escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(b) In years when a harvestable surplus beyond escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000, but the first run fails to develop as predicted and it is determined that a total sockeye salmon harvest in the Chignik Area of 600,000 or more may not be achieved, the Cape Igvak section commercial salmon fishery will be curtailed in order to allow at least a minimum harvest in the Chignik Area of 300,000 sockeye salmon by July 9 if that number of fish is determined to be surplus to the escapement goals of the Chignik River system. After July 8, after at least 300,000 sockeye salmon have been harvested in the Chignik Area and its escapement goals are being met, the department shall manage the fishery so that the number of sockeye salmon harvested in the Chignik Area will be at least 600,000 and the harvest in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(c) On years when a harvestable surplus beyond the escapement goals for the first and second runs of Chignik River system sockeye salmon is expected to be more than 600,000, and the department determines the runs are as strong as expected, the department will manage the fishery in such a manner whereby the number of sockeye salmon taken in the Cape Igvak Section will approach as near as possible 15 percent of the total Chignik sockeye salmon catch.

(d) The total Chignik sockeye salmon catch constitutes those sockeye salmon caught within the Chignik area plus 80 percent of the sockeye salmon caught in the East Stepovak, West Stepovak, Balboa Bay, and Beaver Bay Sections, as described in 5 AAC 09.200 (e) and (f), plus 80 percent of the sockeye salmon caught in the Cape Igvak Section. The harvest in the Cape Igvak Section at any time before July 25 may be permitted to fluctuate above or below 15 percent of the cumulative Chignik sockeye salmon catch.

(e) This allocation method will be in effect through July 25. The first fishing period of the commercial salmon fishing season in the Cape Igvak Section will not occur before the first fishing period of the commercial salmon fishing season in the Chignik Area. After July 25, commercial salmon fishing season in the Cape Igvak section may be allowed on the local Kodiak Area stocks or specifically for Chignik River system sockeye salmon if the second run escapement has reached 200,000.

(f) During the period from approximately June 26 to July 9, the strength of the second run of Chignik River system sockeye salmon cannot be evaluated. In order to prevent overharvest of the second run, commercial salmon fishing in the Cape Igvak Section will, in the department's discretion, be disallowed or severely restricted during this period.

(g) The department shall announce commercial salmon fishing periods by emergency order. The department shall give at least one day notice prior to the opening of a commercial salmon fishing period unless it is an extension of a fishing period in progress.

5 AAC 18.361. ALITAK BAY DISTRICT SALMON MANAGEMENT PLAN. (a) The department shall manage the commercial salmon fishery in the Alitak Bay District in accordance with the guidelines set out in the Alitak Bay District Salmon Management Plan. The goal of this plan is to achieve escapement and harvest objectives of sockeye, pink, and coho salmon stocks returning to the Deadman-Portage Bay Section systems and the Horse Marine, Fraser, Akalura, and Upper Station systems. It is the intent of the board that salmon bound to these systems be harvested to the extent possible by the traditional fisheries located in the Cape Alitak, Deadman-Portage Bay, and Moser-Olga Bay Sections.

(b) The Cape Alitak Section will be managed during the period June 9 through July 15 based on the sockeye salmon return to the Fraser system. During the period July 16 through August 9, in odd numbered years this section will be managed based on the pink salmon return to the Fraser system and, in even numbered years this section will be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, this section will be managed based on the sockeye salmon return to Upper Station but, on even numbered years this section may be managed based on the pink salmon return to the Fraser system. During the period August 26 through season's end,

the Cape Alitak Section will be managed based upon the coho and sockeye salmon returns to the entire Alitak District.

(c) The Moser-Olga Bay Section will be managed, during the period June 9 through July 15, based upon the sockeye salmon return to the Fraser system. During the period July 16 through August 9, on odd numbered years this section will be managed based on the pink salmon return to the Fraser system and, on even numbered years this section will be managed based on the sockeye salmon return to Upper Station. During the period August 10 through August 25, on odd numbered years this section will be managed on the sockeye salmon return to Upper Station and, on even numbered years this section will be managed based on either the pink salmon return to the Fraser system or on the sockeye salmon return to the Upper Station system. During the period August 26 through season's end this section will be managed based on the coho and late sockeye salmon returns to all Olga Bay systems.

(d) The Humpy-Deadman Section will be managed simultaneously, and with equivalent fishing time, with the Cape Alitak and Moser-Olga Bay Sections during the period from June 9 through July 15. After July 15, the Humpy-Deadman Section will be managed based on the strength of returns to systems located within the section.

(e) The Dog Salmon Flats Section will be managed on the basis of sockeye and pink salmon returns to the Fraser River system during the period of June 9 through August 20. During the period of August 21 through season's end this section will be managed on the basis of coho salmon returns to the Dog Salmon River and Horse Marine systems. This section may only be opened to fishing when total desired escapement goals are expected to be exceeded. Such openings should not jeopardize achievement of minimum escapement goals for either of the two remaining salmon species. A 24 hour advance notice will be given before opening this section.

(f) The Inner and Outer Akalura Sections will be managed based on early and late returns of sockeye salmon to the Akalura system during the period from June 9 through August 20. From August 21 through August 26, these sections will be managed based on coho and late sockeye salmon returns to the Akalura system. After August 26, both sections will be managed based on coho salmon returns to the Akalura system. The Inner and Outer Akalura Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings should not jeopardize achievement of minimum escapement goals for other salmon species. Fishing time in the Outer Akalura Section will always occur before any fishing time in the Inner Akalura Section is allowed for each target species. At least 24 hours advance notice will be given before opening either the Inner or Outer Akalura Sections.

(g) The Inner and Outer Upper Station Sections will be managed based on early and late returns of sockeye salmon to the Upper Station system during the period from June 9 through August 20. From August 21 through August 25, these sections will be managed based on coho and late sockeye salmon returns to the Upper Station system. After August 26, both sections will be managed based on coho and late sockeye salmon returns to the Upper Station system. The Inner and Outer Upper Station Sections may be opened to fishing only when desired escapement goals are expected to be exceeded. Such openings should not jeopardize achievement of minimum escapement goals for the other salmon species. Fishing time in the Outer Upper Station Section will always occur before any fishing time in the Inner Upper Station Section is allowed for each target species. At least 24 hours advance notice will be given before opening of either the Inner or Outer Upper Station Sections.

5 AAC 18.394. POSSESSION OF STEELHEAD. Steelhead taken incidental to commercial salmon fishing in Karluk Lagoon must be returned to the water unharmed.

ARTICLE 4.—BOTTOMFISH FISHERY

5 AAC 18.410. FISHING SEASON. There is no closed season on bottomfish.

5 AAC 18.430. GEAR. Bottomfish may be taken by sunken gill nets under the authority of a permit issued by the commissioner or a local representative of the department. The permit may specify open areas, fishing periods, gear specifications and operating specifications, and may require completion by the vessel operator of a log book provided by the department.

5 AAC 18.450. CLOSED WATERS. (a) From June 1 through October 31, bottomfish may not be taken by seines in waters listed in 5 AAC 18.350.

(b) Rockfish (genus Sebastes) may not be taken in waters of Monashka Bay inside of a line from the tip of Termination Point to the tip of Miller Point.

ARTICLE 5.—SMELT FISHERY

5 AAC 18.510. FISHING SEASON. There is no closed season on smelt.

1988 HARVEST STRATEGY FOR THE KODIAK MANAGEMENT AREA COMMERCIAL SALMON FISHERY

By:

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and

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Regional Information Report No. 4K88-32

Alaska Department of Fish and Game
Division of Commercial Fisheries
211 Mission Road
Kodiak, Alaska 99615

May, 1988

[1]The Regional Information Report Series was established in 1987 to provide an information access system for all unpublished division reports. These reports frequently serve diverse ad hoc informational purposes or archive basic uninterpreted data. To accommodate timely reporting of recently collected information, reports in this series undergo only limited internal review and may be subsequently finalized and published in the formal literature. Consequently, these reports should not be cited without prior approval of the author or the Division of Commercial Fisheries.

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INTRODUCTION:

The major objective of managing the Kodiak area salmon fisheries in 1988 is, as always, to provide for an orderly harvest of salmon surplus to escapement requirements for each of the targeted species and systems. The results of the 1988 management activities will directly affect the following future commercially targeted returns:

- The 1990 pink salmon return
- The 1991 and 1992 coho salmon returns
- The 1991, 1992 and 1993 chum salmon returns
- and the 1992, 1993 and 1994 sockeye and chinook salmon returns.

Achieving adequate escapement in 1988 for these species and for their main production systems is essential. This is the most important requirement needed to create the potential for maximum salmon production during the aforementioned years.

Implementing a harvest strategy to accomplish that end, when considering the size and efficiency of the Kodiak seine and set-gillnet fleets, will require approximately 40+ in-season field announcements (emergency orders) to adjust fishing time and areas open to fishing. These announcements will reference various management units (districts and sections), the locations of which are shown on a Kodiak Salmon Management District map available at the Kodiak ADF&G office or at most canneries (see Table 3 for a scaled down version of this map). For the 1988 season new districts and sections will be in effect which basically reflect traditional geographical management patterns but which should be less cumbersome to use with each of the 40+ field announcements.

This harvest strategy attempts to answer most pertinent pre-season and in-season questions regarding when the season for each species will begin (time and date), what harvest levels are expected and in the case of major sockeye systems what level of escapement is required, the nature of specific harvest strategies by species, and the regulation under which the various fisheries will be conducted.

If there appears to be shortcomings in this document's content which would further clarify or enhance the nature of the 1988 Kodiak salmon harvest strategy, we encourage that this information be brought to our attention. It is our intent to provide as complete a management scenario as possible commensurate with our knowledge and experience.

INITIAL OPENING TIMES/DATES OF THE 1988 SALMON SEASON FOR SPECIFIC FISHERIES

FISHERY	EARLIEST OPENING TIME/DATE
Early-Run Sockeye Salmon Fisheries	
- Cape Igvak Section	12:01 A.M. June 5 (Approximate Date)[1]
- N.W. Kodiak District	12:00 Noon June 9 (Firm Date)[2]
- Inner Ayakulik and Outer Ayakulik Sections	Low tide June 9 (Approximate Date)[3]
- Alitak District	12:00 Noon June 9 (Firm Date)[4]
- Minor Systems	12:00 Noon June 14 (Approximate Date)[5]
General Pink/Chum Salmon Fisheries	12:00 Noon July 6 (Firm Date)[6]
Late Run Sockeye Salmon Fishery	
- Cape Igvak Section	12:01 A.M. July 9 (Approximate Date)[7]
- All remaining late-run sockeye fisheries	12:00 Noon July 15 (Approximate Date)[8]
System Specific Coho Salmon Fisheries	12:00 Noon Aug. 1 (Approximate Date)[9]

[1]Actual opening date will be determined by sockeye escapement level into the Chignik River system. Fishing time will be in 24 hour increments.

[2]Actual opening time/date is as shown. This opening is considered a commercial test fishery; fishing time for this initial period will be 33 hours (12:00 noon 6/9 through 9:00 P.M. 6/10).

[3]Actual opening date will be determined by sockeye escapement level into Ayakulik River and opening time by low tide timing during daylight hours.

[4]Actual opening time/date is as shown. This opening is considered a commercial test fishery; fishing time for the initial period will be 33 hours (12:00 Noon 6/9 through 9:00 P.M. 6/10).

[5]Actual opening date will be determined by sockeye escapement levels into minor systems. Fishing time for this initial period will be 33 hours (12:00 Noon through 9:00 P.M.)

[6]Actual opening time/date is as shown. Fishing time for this initial period will be 57 hours (12:00 Noon 7/6 through 9:00 P.M. 7/8); see section on Fishing Periods for additional information.

[7]Actual opening date will be determined by sockeye escapement levels into the Chignik River System. Fishing time will be in 24 hour increments.

[8]Actual opening date for system-specific fishing time will be determined by sockeye escapement levels into major systems. All fishing periods will begin at 12:00 Noon and end at 9:00 P.M. prior to 8/16 and end at 6:00 P.M. from 8/16 to season's end.

[9]Actual opening date for system-specific fishing time will be determined by overall coho run strength evaluation and by escapement levels into major systems and into minor systems with reliable escapement data.

FISHING PERIODS

- ALL FISHING PERIODS WILL BE BY EMERGENCY ORDER and will be generally based upon in-season assessment of actual run strength.

- ADVANCE NOTICE FOR EACH FISHING PERIOD:

  - There will be at least 28 hours advance notice prior to each fishing period except for the initial Cape Igvak section fishery and the initial fisheries for major and minor early run sockeye fisheries where at least 48 hours advance notice will be given.

  - As in the past, all advance notice is figured from Peggy Dyson's 8:00 A.M. weather broadcast on 4125 mhz S.S.B. Commonly, announcements will have at least 42 hours notice when figured from her 6:00 P.M. broadcast.

  - All extensions in fishing time will have at least 3 hours advance notice; commonly however, extensions will have 15 hours advance notice.

- LENGTH OF FISHING PERIODS

  - SOCKEYE: In general, each fishing period targeting on sockeye for both early and late runs to all main system stocks will be dependent upon "weir" escapements. This will also apply to those minor "weired" systems targeted by the commercial fishery.

    The exceptions to this will be the normal June commercial test fishery in the Alitak District and the new June commercial test fishery in the N.W. Kodiak District (see Table 3 for statistical map showing approximate boundaries of this district). As shown in Table 1, both of these initial commercial test fisheries will be 33 hours long extending from 12:00 noon Thursday June 9 through 9:00 P.M. Friday June 10. Additionally, a second 33 hour commercial test fishery will occur in the N.W. Kodiak District on approximately June 14 or 15 depending upon when this fishery can be coordinated with other terminal sockeye fisheries in order to spread the effort. This second commercial test fishing period will only occur on those years when harvestable surpluses of sockeye are projected for Kodiak's four (4) major sockeye systems; 1988 is such a year. Additional fishing time in the Alitak District will depend on the results of the June 9 test fishery, weir escapements and positive build-up trends.

    In conjunction with this second commercial test fishing period will be the initial 33 hour fishing period for targeted healthy minor sockeye systems (Uganik, Saltery, etc.). Specific management units (sections) open for this fishery will be dependent upon the health of the pertinent systems associated with these units. The E.O. announcement for this opening will specify which sections are to be opened.

    In the case of the Igvak sockeye fishery, fishing periods in the Cape Igvak section will continue to be in increments of 24 hours running from 12:00 midnight to 12:00 midnight. Fishing time will be dependent upon an evaluation of the Chignik System sockeye run, the predominant contributing system for sockeye harvested in this section. Please review the Cape Igvak management plan listed in the regulations on page 26 of this document to better understand the biological and allocative requirements of this plan. for the 1988 season, as in recent past seasons, fishing time will initially be allocated in the Cape Igvak section based upon the criteria listed in paragraph (c) of the plan.

- PINKS: Because the projected pink salmon return is expected to be above average in magnitude, fishing periods are expected to average five days in length. However, the length of individual fishing periods is expected to vary from 2-1/2 days to 7 days per week during the period July 6 through August 20. Scenarios on possible fishing time during this time period for those management units unaffected by other specific considerations is listed below:

  - The initial period which begins at 12:00 noon on July 6 will be 2-1/2 days long, ending at 9:00 P.M. on July 8.

  - The second and third periods will expand to approximately 4-1/2 days and will run from 12:00 Noon July 11 through 9:00 P.M. July 15 and from 12:00 Noon July 18 through 9:00 P.M. July 22. An extension in fishing time to the third period will occur if it appears that the actual pink return may exceed the forecasted returns.

  - The fourth period will be approximately 4-1/2 days long and will run from 12:00 Noon July 25 through 9:00 P.M. July 29. However, the peak of the pink salmon harvest should be evident by this period and if pre-season expectations appear to be valid an extension in fishing time to continuous fishing is highly likely.

  - The fifth fishing period, or that time period from approximately 12:00 Noon August 1 through 9:00 P.M. August 5, should be the peak harvest period for Kodiak's pink return providing normal timing occurs. Again, if pre-season expectations appear valid this period will be a continuation of the previous period.

  - The sixth fishing period, or that time period from approximately 12:00 Noon August 8 through 9:00 P.M. August 12 should be a post-peak period. Consequently, for identified weakness in return strength which may require system-specific adjustments in fishing time by management unit and/or closed water sanctuaries, deviations in the pattern of fishing from previous periods will be more evident.

  - The seventh fishing period will be approximately 3-1/2 days long and will run from 12:00 Noon August 15 through 6:00 P.M. August 18 (closing times of all fishing periods after August 16 will be 6:00 P.M. rather than 9:00 P.M. as recommended by the Kodiak Fish and Game Advisory Committee.) This will be an important period requiring a more multi-species management approach in those sections where pinks had been the target species for the previous six periods. Emphasis will be on harvesting excess good quality pink salmon or on achieving minimum pink salmon escapements where applicable, with concern towards the run strength of late-run sockeye salmon and late-run chum salmon.

  - The eighth fishing period will be approximately 3-1/2 days and will run from 12:00 Noon August 22 through 6:00 P.M. August 25. This will essentially be primarily a clean-up period (for both escapement and harvest) for most pink salmon stocks, however some late-run stocks will require continued concern for achieving quality harvest or proper escapement levels. This concern will continue into the first week of September for the few extremely late-run pink salmon systems. Again this period will require a major emphasis on multi-species management; it is a critical management period for late-run sockeye and chum salmon as well as some early-run coho stocks.

- CHUMS AND COHO: A large portion of the 1988 Kodiak chum and coho salmon harvest will occur in non-terminal locations associated with major pink salmon fisheries during those periods occurring from July 6 through approximately mid-August. System-specific chum and coho salmon fishing periods which occur during that time period will commonly have less fishing time than corresponding pink salmon fishing periods; management of specific chum and coho salmon stocks will emphasize the use of the new section boundaries (e.g. for chum: Zachar Bay section, Inner Kukak section,. Kizhuyak section, etc!; and for coho: Shuyak Island section, Inner Ugak Bay section, etc!)

E.O. IN-SEASON ANNOUNCEMENTS ("GETTING THE WORD")

- Fishing period announcements are never predictable because the fishery is managed on an evaluation of sporadically compiled data, i.e. (1) escapements via weir counts and/or aerial surveys, (2) harvest trends (total catch and C.P.U.E.) and (3) information on fish "build-ups".
- Once enough information has been collected to determine adequate fishing time to harvest surplus fish an emergency order is "immediately" issued in the following manner:

1/ A news release is constructed detailing:

a. The date, time, and number of the emergency order announcement.

b. The length of the fishing period.

c. The opening and closing times and dates.

d. The areas open to fishing.

e. The areas closed to fishing (those sections not listed as being open).

f. The location of "closed water" marker adjustments.

2/ Copies of the news release are posted on the windows of the entrance doors to the Kodiak ADF&G office.

3/ Copies are made available for walk-in traffic to the office during working hours; for after-hours availability, copies are stored in a manila envelope taped to the window by the main entrance door.

4/ The news release is recorded on a 24-hour recorded message phone (Number 486-4559).

5/ The news release is made available to three local radio stations (K.V.O.K., K.M.X.T., and K.G.T.L.) to be played by these stations at pre-designated times during the day.

6/ The news release is announced over 4125 by Peggy Dyson following her weather schedules, Commonly, the first reading of a news release occurs after Peggy's 6:00 P.M. schedule, but occasionally the 8:00 A.M. schedule yields the initial reading.

7/ The news release is distributed to all processors either by hand, verbally on the telephone, by tele-fax, or by their calling the recorded message phone; this information is then passed along to their respective tenders.

8/ Information on the most current news release or emergency order can also be obtained by calling the Kodiak ADF&G office during working hours or by calling either Larry Malloy (486-4251), Dave Prokopowich (486-6007), or Kevin Brennan (486-2748) after working hours or on weekends.

9/ Copies of emergency orders for each news release are mailed to a current listing of required and interested recipients.

10/ Many fishermen, ADF&G vessels and camps, and Fish and Wildlife Protection vessels use a small tape recorder to document the exact wording of each announcement as broadcast by Peggy Dyson. This is a very prudent thing to do when considering the complicated nature of each announcement and considering these new District and Section boundaries.

FISH TICKETS

A reminder to all fishermen to check the statistical area recorded on each of your fish tickets. It is required that the correct harvest location(s) be shown on each ticket and it is the responsibility of each fisherman that the tender operators or the cannery personnel record the correct harvest location on each ticket. This information is extremely useful in evaluating in-season harvest levels, stock contribution, and effort distribution.

SEINERS: Please provide estimates of harvest by area to tender operators. For example "1/3 of my reds were from Cape Alitak (257-20) and the rest were from Red River (256-20). The rest of my fish were 1/2 and 1/2 from each of these areas". Prior to signing your tickets, ensure that the proper harvest information by STATISTICAL AREA has been entered.

GILLNETERS: Because of the fixed nature of your gear, each permit holder's reporting area should be consistent between landings. However, in the event that you become "exploratory" with your nets and move into a new statistical area, please provide the tender operator with that information. Prior to signing your tickets, ensure that the proper harvest information by STATISTICAL AREA has been entered.

REGULATIONS:

General

- The Board of Fisheries acted on Kodiak Area proposed regulation changes during their March 1988 meeting in Anchorage. Because of the late timing of this meeting, regulation books will not be available until the commercial salmon season is underway. However, attached to this harvest strategy is a copy of the 1988 Kodiak Salmon Regulations exactly as they will appear in the 1988 Commercial Finfish Regulation book. Please use this attached copy to familiarize yourself with the large number of new regulations which will be in effect for the first time during the 1988 season.

- A brief explanation of the new regulations is listed below. To better understand the nature of each new regulation after reading the abstract, a comparison of the wording between the 1987 and 1988 regulations should be made; there are still a few 1987 regulation books available at the Kodiak Fish and Game office if yours is missing. If a new regulation seems unclear, please feel free to contact the Kodiak Finfish Management staff for clarification and for a historical review of the regulation(s) in question.

- Copies of the General Provision regulations are not included in this document. They will be available when the 1988 Commercial Finfish Regulation book becomes available in early June.

- 1988 regulatory review: (See page 20 for complete listing of 1988 regulations).

- ARTICLE 2. FISHING DISTRICTS

  - 5 AAC 18.200 FISHING DISTRICTS AND SECTIONS

    - Major changes have been made in names and boundaries for many Districts and Sections.

    - Please rely very heavily on the 1988 Salmon District Map which is readily available at the Kodiak ADF&G office and at most canneries to familiarize yourself with these changes.

    - All announcements regarding fishing time by area will refer to these new Districts and Sections; it will be very important to be familiar with the new names and boundaries.

- ARTICLE 3. SALMON FISHERY

  - 5 AAC 18.310 FISHING SEASONS

    - The regulatory salmon season has been re-established to extend from June 5 through October 31.

      - June 5 pertains to the earliest possible opening date for the Cape Igvak Fishery.

      - June 9 would be the earliest opening date for the remainder of the management area and specifically refers to the commercial test fisheries in the Alitak District and N.W. District Kodiak which will begin at 1200 Noon on Thursday June 9.

      - For "approximate" season dates of specific fisheries see Table 1 on page 16.

  - 5 AAC 18.320 FISHING PERIODS

    - No wording change for this regulation.

  - 5 AAC 18.330 GEAR

    - A wording change identifies more clearly which gear types are legal in each management section.

- 5 AAC 18.331 GILLNET SPECIFICATIONS AND OPERATIONS

  - A wording change in paragraph (b.) re-describes how seine webbing, when used as a set gillnet lead, may be used. Specifically, it describes the criteria for determining the quantity of seine webbing allowed for specific sections and geographical locations.

  - A wording change in paragraph (d.) re-describes the location of where a set gillnet's shoreward end must be attached.

- 5 AAC 18.332 SEINE SPECIFICATIONS AND OPERATION

  - No wording change for this regulation.

- 5 AAC 18.335 MINIMUM DISTANCE BETWEEN UNITS OF GEAR

  - A wording change deletes the minimum distance requirement between units of set gillnet gear for the five new sections in Olga Bay (i.e. Dog Salmon Flats, Inner and Outer Upper Station, and Inner and Outer Akalura Sections).

- 5 AAC 18.350 CLOSED WATERS

  - Closed water boundaries have been adjusted as follows:

  - (2)(E) SOUTHWEST KODIAK DISTRICT - KARLUK

    - A closed water sanctuary has been re-established off of the mouth of Karluk River and Lagoon. See the regulation listed on page 24 of this document.

  - (6)(B) NORTHEAST KODIAK DISTRICT - WOMEN'S BAY

    - The closed water sanctuary in Women's Bay has been slightly reduced. See the regulation listed on page 25 of this document.

  - (5)(M) NORTHWEST KODIAK DISTRICT - OUZINKIE HARBOR

    - A closed water sanctuary has been established off of the mouth of Katmai Creek by Ouzinkie Village. See the regulation listed on page 25 of this document.

- 5 AAC 18.355 SALMON PROCESSOR AND BUYER REPORTING REQUIREMENTS

  - This is a new regulation which specifically requires registration for all salmon buyers (shorebased or floating), tender operators, and companies transporting salmon by aircraft in the Kodiak Area prior to the start of processing or buying operations.

- 5 AAC 18.360 CAPE IGVAK SALMON MANAGEMENT PLAN

  - No wording change for this regulation.

- 5 AAC 18.361 ALITAK BAY DISTRICT SALMON MANAGEMENT PLAN

  - This is a new regulation which describes how the commercial salmon fishery in Alitak Bay District will be managed. This regulation is listed on page 15 of this document.

- 5 AAC 18.394 POSSESSION OF STEELHEAD

  - No wording change for this regulation.

MISCELLANEOUS REGULATORY CLARIFICATIONS

Boundary Determinations:

- When determining the location of a particular District/Section boundary, or any in-season emergency order boundary, the latitude and longitude as plotted on a navigational chart (scale 1:81, 529) will represent the correct boundary locations. Latitude and longitude as determined by Loran bearings represent incorrect boundary locations for purposes of determining the aforementioned boundaries.

Closed Water Adjustments:

- As a result of conflicting interpretations of Alaska Statute 16.05.785 FAILURE TO REMOVE MARKERS (see the 1988 Finfish Regulation Book) there will be no in-season adjustments of closed waters (as described in Section 5 AAC 18.350) unless ADF&G personnel will be able to remove old markers and install new markers or unless in-season adjustments of closed waters are made to a specific stream terminus.

Closed Water Sanctuaries:

- In areas where ADF&G has deployed regulatory markers to establish waters closed to fishing, a straight line closure is in effect provided that no portion of that line is less than 500 yards from the stream terminus. Consequently, common closed water configurations will be areas of various shapes, depending upon the nature of each individual stream mouth (terminus), extending between the two regulatory markers.

- The definition of "Stream Terminus" as listed in the 1987/1988 commercial salmon regulations is as follows:

  - Salmon stream terminus means a line drawn between the seaward extremities of the exposed tideland banks of any salmon stream at mean lower low water;

- In areas where ADF&G has deployed regulatory markers to establish waters closed to fishing in entire bays a straight line closure is in effect.

1988
KODIAK COMMERCIAL SALMON FISHERY
PROJECTED HARVEST BY SPECIES

YEAR	KING	SOCKEYE	COHO	PINKS	CHUMS	TOTAL
1988	4,000	1,800,000	150,000	15,250,000	1,000,000	18,204,000

1988
PROJECTED SALMON HARVEST SUMMARY
BY SPECIES AND BY FISHERY CHRONOLOGY

Fisheries	Projected Harvest (In Millions of Fish)
Early Run Sockeye Salmon Fisheries (6/9-7/15)	
- Cape Igvak	.280
- Karluk	.225
- Ayakulik	.105
- Upper Station	.090
- Fraser	.125
- Minor Systems	.035
Sub-total:	.860
Pink Salmon Fisheries (7/6-9/5)	
- Afognak (Hatchery)	1.250
- Afognak (Natural)	.645
- Westside Kodiak	9.206
- Alitak	.753
- Eastside/North end Kodiak	3.000
- Mainland	.316
Sub-Total	15.250
Chum Salmon Fisheries (7/6-9/5)	
- Afognak (Hatchery)	.000
- Afognak (Natural)	.050
- Westside Kodiak (Early)	.075
- Westside Kodiak (Late)	.125
- Alitak (Early)	.020
- Alitak (Late)	.080

- Eastside Kodiak (Early)	.080
- Eastside Kodiak (Late)	.170
- Mainland (Early)	.140
- Mainland (Late)	.200
Sub-total	1.000

Late Run Sockeye Salmon Fisheries (7/15-9/15)

- Cape Igvak	.150
- Karluk	.325
- Ayakulik	.050
- Upper Station	.400
- Minor Systems	.015
Sub-Total	.940

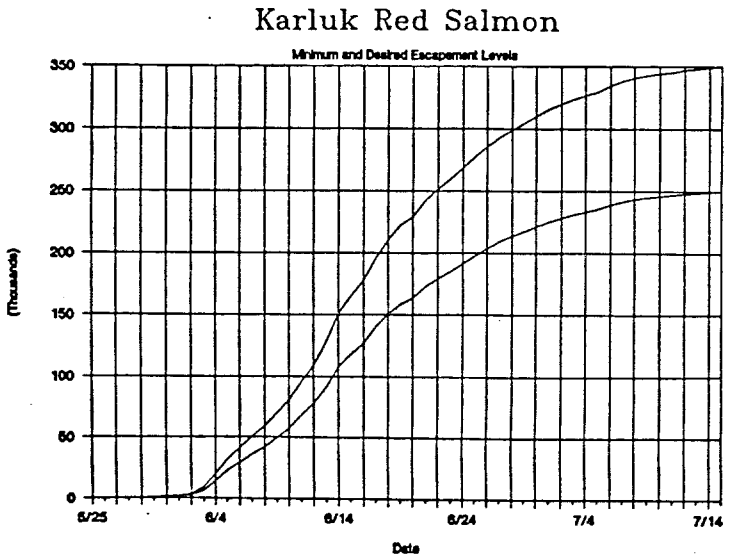
Coho Salmon Fisheries (8/1-10/1)

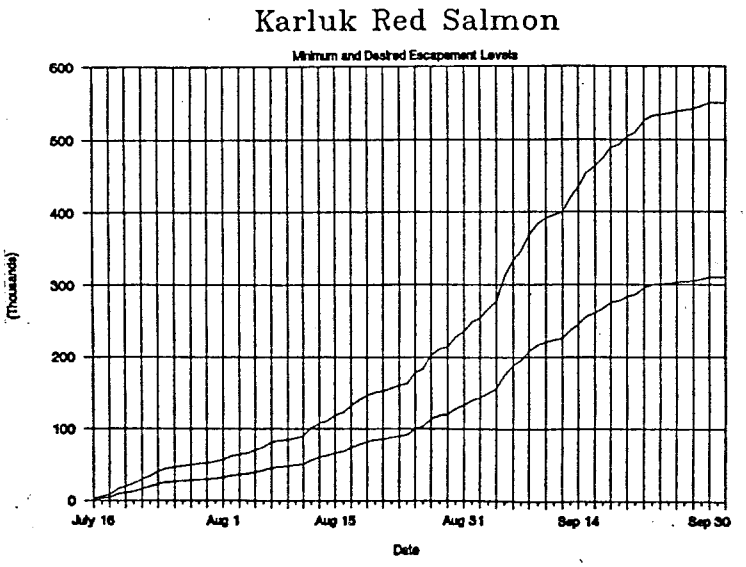
- Afognak	.040
- Westside	.055
- Alitak	.020
- Eastside/Northend Kodiak Island	.015
- Mainland	.020
Sub-Total	.150

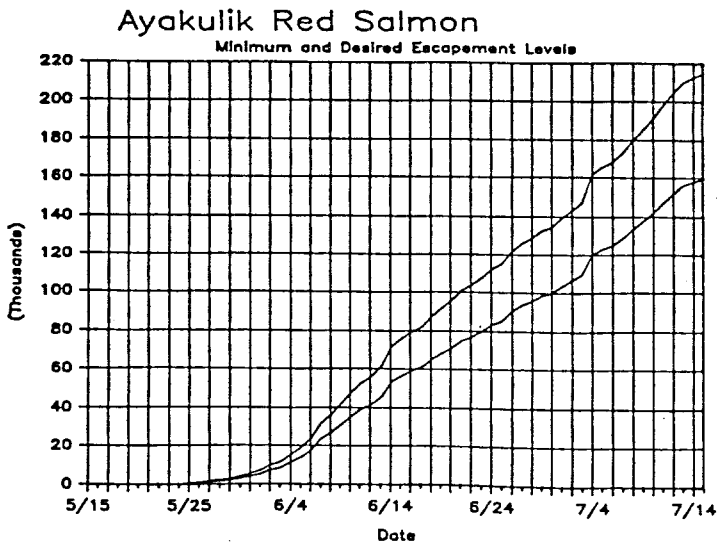
1988 GRAND TOTAL PROJECTED HARVEST FOR ALL KODIAK SALMON FISHERIES: 18.204 Million Salmon

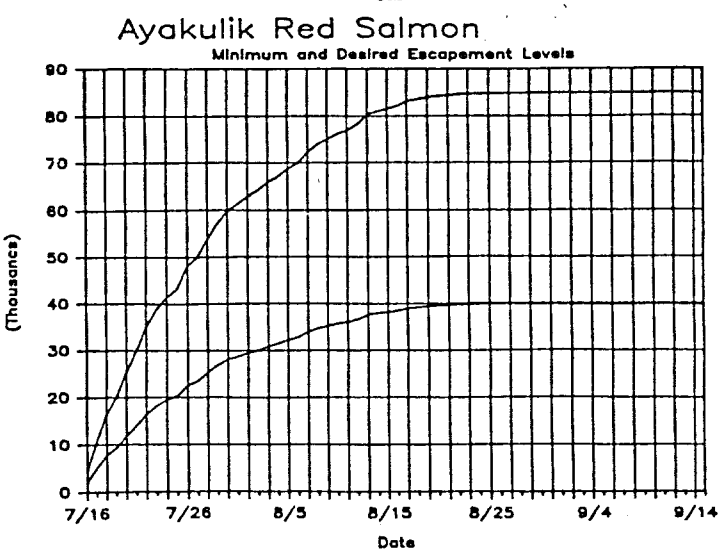
SELECTED SOCKEYE ESCAPEMENT REQUIREMENTS:

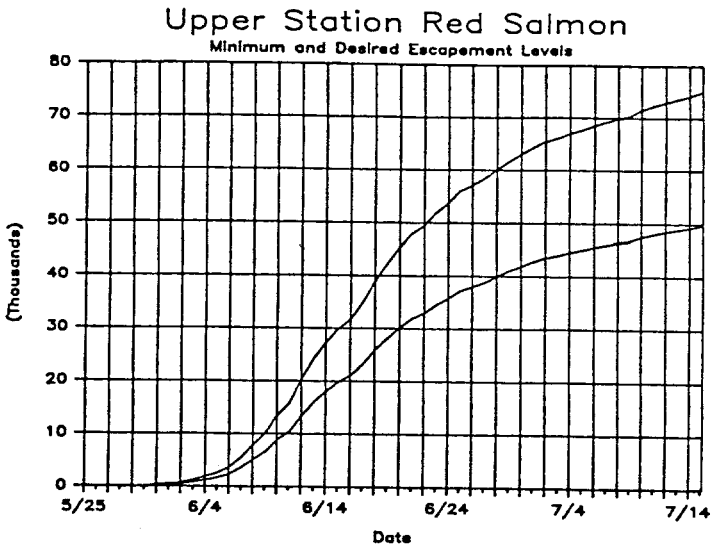
- Fishing time for Kodiak's major sockeye fisheries will depend upon an evaluation of run strength as determined primarily by escapement rates. The graphs shown below are used in-season as aids in determining if escapement rates are "tracking" ahead or behind schedule. They represent average accumulative escapement rates by time and thus yield interim goals with which to evaluate and regulate stock-specific fishing time. The bottom curve represents an escapement rate at minimum levels; escapement levels below this line signify that the minimum escapement requirement may not be achieved and thus fishing time will be severely restricted. The upper curve represents an escapement rate at desired (optimum) levels; escapement levels above this line are excess to biological requirements for optimum yield and thus fishing time will be extremely liberal. Escapement levels between the curves will generate the proper fishing time needed to ensure that the final escapement level will be somewhere between minimum and desired requirements.

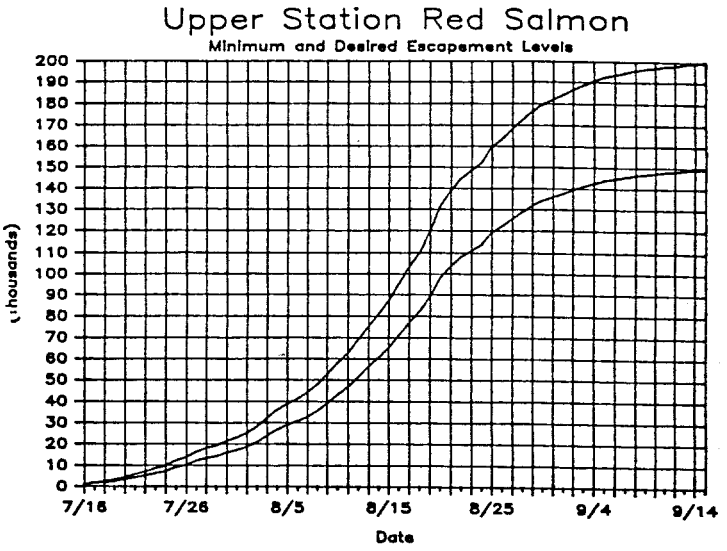


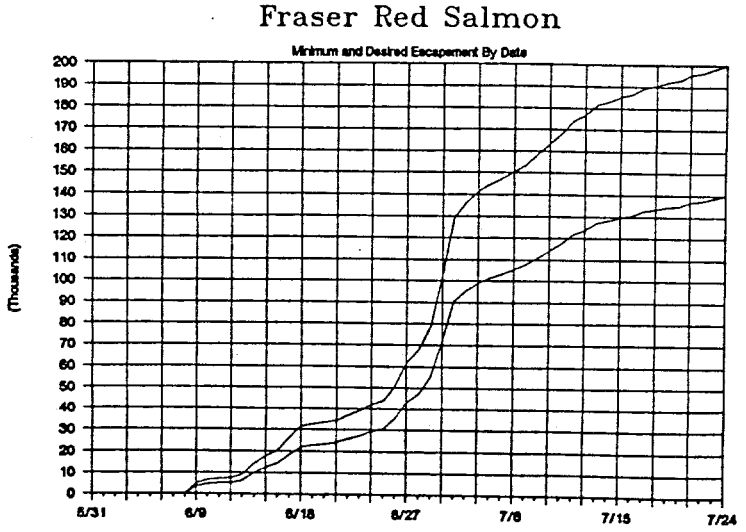







Upper Station Red Salmon
Minimum and Desired Escapement Levels
(Thousands)
80
70
60
50
40
30
20
10
0
5/25
6/4
6/14
6/24
7/4
7/14
Date


Upper Station Red Salmon
Minimum and Desired Escapement Levels
(Thousands)
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
7/16
7/26
8/5
8/15
8/25
9/4
9/14
Date


Fraser Red Salmon
Minimum and Desired Escapement By Date
(Thousands)
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
5/31
6/9
6/18
6/27
7/6
7/15
7/24

FISHERY SPECIFIC MANAGEMENT PLANS:

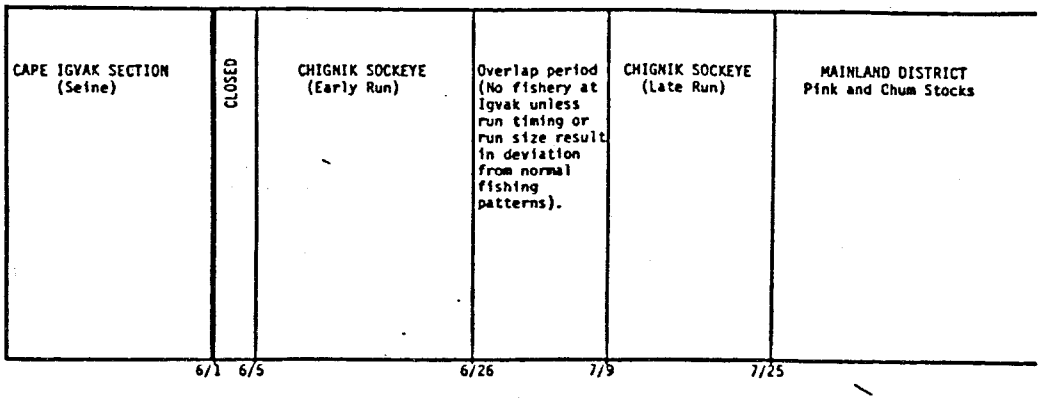
CAPE IGVAK AND ALITAK DISTRICT MANAGEMENT PLANS

- The Kodiak Management Area currently has two Board of Fisheries approved regulatory salmon management plans which contain major biological and allocative provisions for which to manage the salmon fisheries affected by these plans. As with any good plan the test of time and continued review will determine its effectiveness at accomplishing the desired biological and allocative goals. Of these two plans, only the Cape Igvak plan has been adequately exposed to this degree of scrutiny; namely for the ten year period from 1978 to 1987. The other regulatory plan, the new Alitak District management plan, will not be up for regulatory review until the fall of 1989, consequently both the 1988 and 1989 salmon seasons will provide excellent opportunities to focus on evaluating the effectiveness of this plan. Actually, the 1987 season was the initial year that this plan was implemented; it was presented as a modification of previous harvest strategies for the Alitak District and was the strategy which seemed to provide the fishery stability desired by industry and which did provide required biological safeguards desired by ADF&G.

- Diagrams for each of these plans are shown below; the exact wording for these plans occurs in the regulations attached to this document on pages 26 through 28.

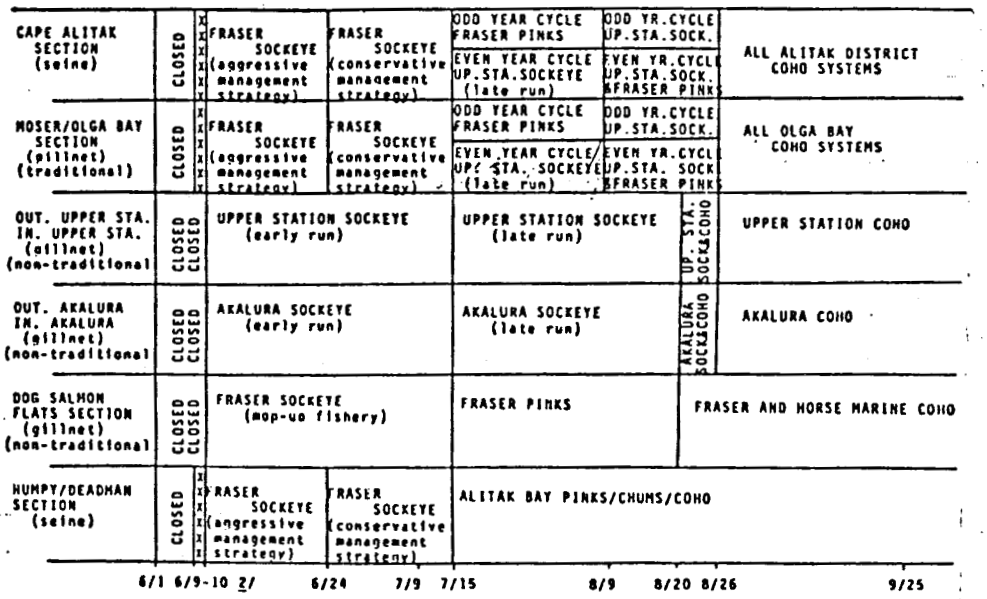
- As indicated earlier, the 1988 Cape Igvak fishery will be managed according to section (C) of the Cape Igvak Management plan; this has been the most common management strategy used during the recent high production years at Chignik. Section (B) will be implemented immediately if it appears that the criteria in (B) apply.

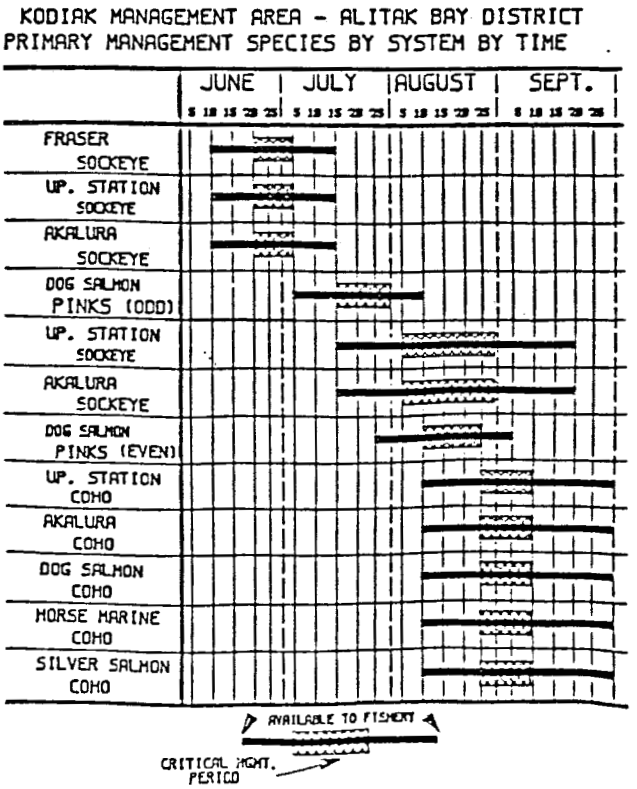
SALMON MANAGEMENT PLAN FOR CAPE IGVAK SECTION
Targeted Species by System and Time for Specific Management Unit(s)



- ALITAK DISTRICT MANAGEMENT PLAN:

  - This plan will follow as much as possible the diagram shown below. Dates listed in the plan are approximate and may vary slightly with changes in run timing; an exception is the June 9 test fishery which is a firm date. Also shown below is a diagram of estimated run timing which emphasizes the management complexities of this district; again the dates shown are approximate and may vary with changes in run timing.





WESTSIDE AFOGNAK/KODIAK MANAGEMENT PLAN

- Also listed in this section on management plans is another proposed regulatory plan for management of the major salmon fishing area which occurs along the westside of Kodiak and Afognak Islands. This is the primary harvest areas for the major sockeye and pink salmon systems of Karluk and Ayakulik (Red River). The management strategy shown in the diagram below actually represents a balanced blend of traditional fishing opportunities between gear types and of more enlightened biological requirements for the targeted stocks exploited in this geographical area. Obviously the old style of fisheries management which provided for a fixed five (5) day a week fishery and a two (2) day weekend period for escapement did not work in the best interest of the sockeye stocks on all years and for the pink stocks on many years. The resultant "lean years" seem to be coming to an end; certainly the recent patterns in both sockeye and pink salmon production have been extremely positive. Consequently in order to maintain these positive trends in the face of a modern highly efficient seine and set gillnet fleet, a more structured approach to harvesting quality surplus sockeye and pink salmon from this geographical area is needed. The diagram shown below for this harvest strategy depicts in-season management strategies which have been gradually implemented since the rebuilding process for Kodiak sockeye stocks began in 1970. It emphasizes continued closures in very early June, a commercial test fishery(ies) in early and mid June, and a more system-specific target period for contributing systems. It also emphasizes the mixed-species management approach required during July through September, including the differences required between even and odd year pink salmon cycles. It further documents the developing coho management strategy.

SALMON MANAGEMENT PLAN FOR S.W. KODIAK DISTRICT AND PORTIONS OF N.W. KODIAK AND AFOGNAK DISTRICTS
Targeted Species by System and Time for Specific Management Units

N.W. Kod./Afognak District	S.W. Afognak Section (Seine)	CLOSED	KARLUK SOCKEYE	MIXED PINKS			LOCAL PINKS	LOCAL COHO STOCKS
	NORTH CAPE SECTION (Seine) / CENTRAL SECTION (Gillnet and Seine)	CLOSED	KARLUK SOCKEYE	MIXED PINKS		WESTSIDE PINKS/KAR. SOCKEYE	KARLUK SOCK. AND COHO	KARLUK COHO
S.W. Kodiak District	OUTER KARLUK SECTION (Seine)	CLOSED	KARLUK SOCKEYE	ODD YEAR CYCLE - KARLUK SOCKEYE			KARLUK SOCKEYE/COHO	
				EVEN YEAR CYCLE - KARLUK SOCK./W. SIDE PINKS				
	INNER KARLUK SECTION (Seine)	CLOSED	KARLUK SOCKEYE	ODD YEAR CYCLE - KARLUK SOCKEYE			KARLUK SOCKEYE/COHO	
				EVEN YEAR CYCLE - KARLUK SOCK./KARLUK PINKS				
	STURGEON SECTION (Seine)	CLOSED	KARLUK/AYAKULIK[a] SOCKEYE	KARLUK[a] SOCKEYE	ODD YEAR CYCLE - KARLUK SOCKEYE		KARLUK SOCKEYE	LOCAL COHO STOCKS
					EVEN YEAR CYCLE - KARLUK SOCKEYE/PINKS			
	HALIBUT BAY SECTION (Seine)	CLOSED	KARLUK/AYAKULIK SOCKEYE	KARLUK SOCKEYE	ODD YEAR CYCLE - KARLUK/AYAKULIK SOCKEYE		KARLUK SOCKEYE	LOCAL COHO STOCKS
					[b]	[c]		
	OUTER AYAKULIK SECT. (Seine)	CLOSED	AYAKULIK SOCKEYE	ODD YEAR CYCLE - AYAKULIK SOCKEYE			AYAKULIK COHO	
				EVEN YEAR CYCLE - AYAKULIK SOCKEYE/PINKS				
	INNER AYAKULIK SECT. (Seine)	CLOSED	AYAKULIK SOCKEYE	ODD YEAR CYCLE - AYAKULIK SOCKEYE			AYAKULIK COHO	
				EVEN YEAR CYCLE - AYAKULIK SOCKEYE/PINKS				

6/1 6/4-10 6/14-15 6/18 6/25 7/6 7/15 8/1 8/15 8/24 9/5 10/1

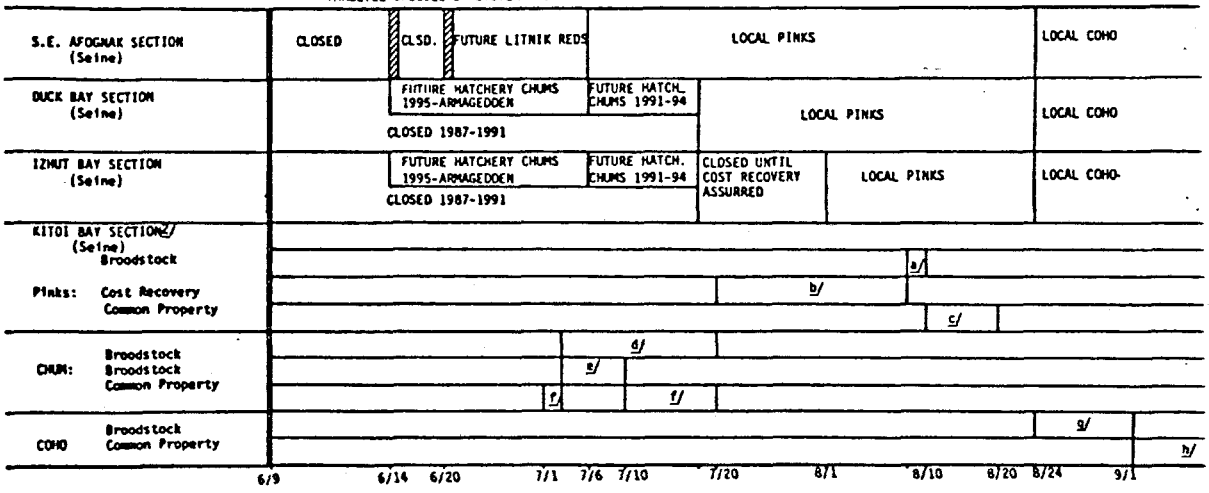
Commercial Test Fisheries

[a]/Fishing time in this section may occasionally be affected by the stock status of Sturgeon River chum if the normal closed waters for Sturgeon River ever need to be extended by field announcements.
[b]/Even year cycle: Karluk/Ayakulik sockeye and pinks
[c]/Even Year cycle: Karluk/Ayakulik pinks

KITOI BAY HATCHERY MANAGEMENT PLAN

A fourth management plan that reflects the complex management of Kitoi Bay hatchery salmon production is also depicted below. This plan reflects current and future harvest strategies which have been and will be required to maximize production from the hatchery. Additionally, greater protection for eastside Afognak natural salmon runs can be more readily provided with this plan.

SALMON MANAGEMENT PLAN FOR KITOI BAY HATCHERY
TARGETED SPECIES BY SYSTEM AND TIME FOR SPECIFIC MANAGEMENT UNITS[1/]



▒ - fishing time dependent upon sockeye escapement into Litnik system.

[1/]Included in this management plan are harvest strategies for current natural and artificial production as well as future artificial production.

[2/]The management plan required for the Kitoi Bay section is rather complicated in order to achieve broodstock, cost recovery, and common property harvest requirements. This is further complicated by the multispecies production currently occurring at Kitoi hatchery. The diagram shown attempts to approximate dates for when specific management strategies should be implemented to insure achievement of hatchery goals and an orderly harvest of quality common property fish.

a/Hatchery pink salmon broodstock captured.
b/Hatchery pink salmon cost recovery fishery.
c/Hatchery pink salmon common property fishery.
d/Hatchery chum salmon broodstock captured 1987-1994.
e/Hatchery chum salmon broodstock captured 1995-Armageddon.
f/Hatchery chum salmon common property fishery.
g/Hatchery coho salmon broodstock captured.
h/Hatchery coho salmon common property fishery.

HARVEST STRATEGIES BY FISHERIES

Depicted below is a listing of relatively discrete fisheries which require specific harvest strategies. This includes both Board approved management plans (Cape Igvak Section, Alitak District) proposed management plans (westside Afognak/Kodiak Section, Eastside Afognak sections), and numerous harvest strategies for either system-specific or geographically-associated management scenarios (Mainland District chums, Shuyak Island coho). These fisheries are organized to show which management units are managed for which species during which time period and for what criteria. This listing first occurred in the 1987 Kodiak General Salmon Harvest Strategy in order that existing harvest strategies, or annual modifications thereof, would be better documented and that fishermen and processors as well as other ADF&G personnel could better understand the chronological sequence of the Kodiak Area's complex fishery scenarios. For the 1988 season, several wording changes appear which reflect the new District and Section boundaries for the Kodiak area.

1988
KODIAK MANAGEMENT AREA HARVEST STRATEGIES BY FISHERY
This table is intended to be used as a general planning guide for both ADF&G and industry. Inseason emergency orders will specify in-season adjustments for areas open to fishing and the length of each fishing period. These adjustments will help insure that escapement needs are met.

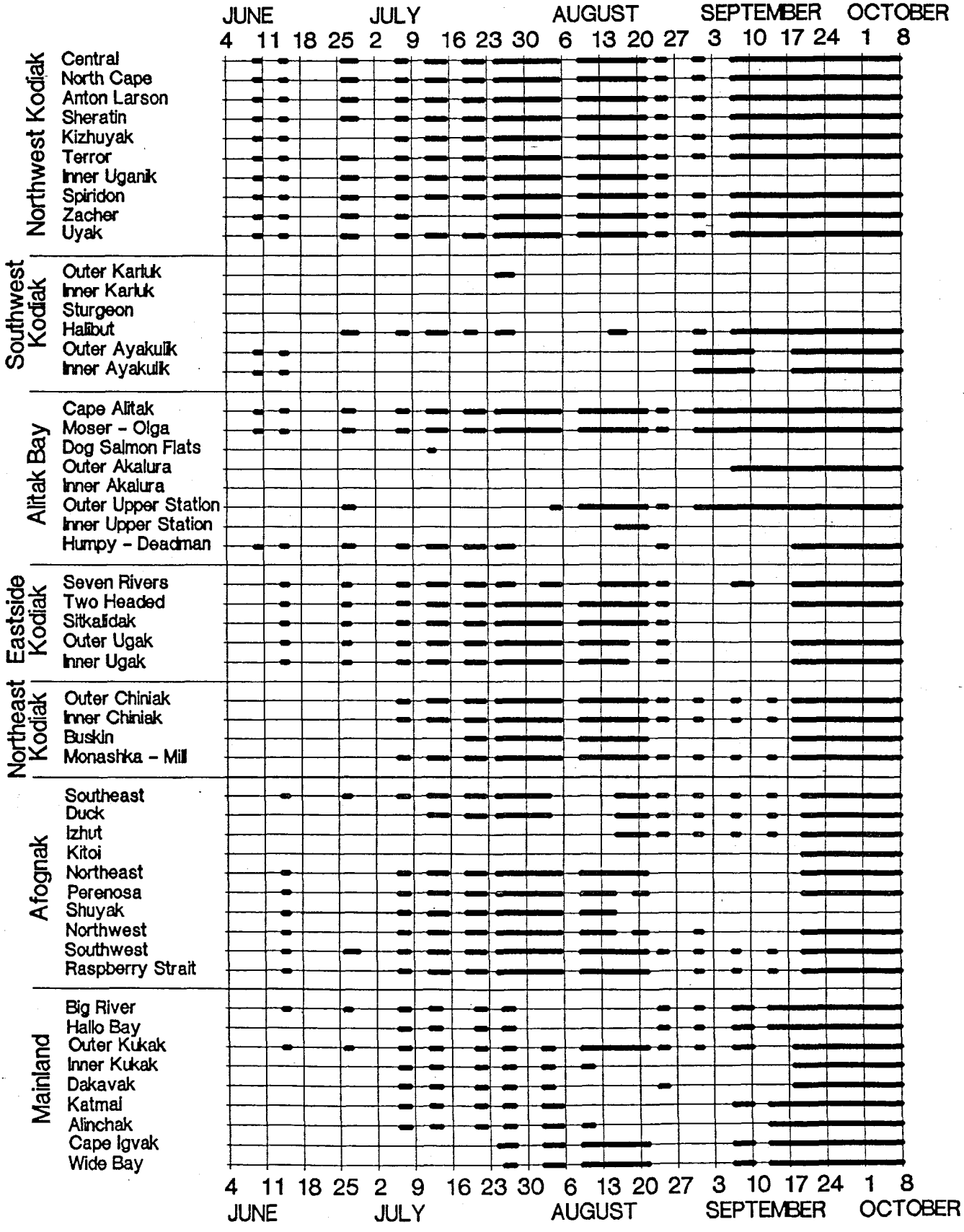
Fisheries Name Districts/Sections[1]	Target Systems/Species	"Approximate" Fishing Season Earliest	Latest	Fishing Period Times Openings	Closures	Criteria for Determining Fishing Period
CAPE IGVAK FISHERY						
Cape Igvak Section	Chignik Early Sockeye	June 5	June 26	12:01 A.M.	12:01 A.M.	Dependent on Chignik Weir Sockeye Escapement and Harvest Percentage
	Chignik Late Sockeye	July 9	July 25	12:01 A.M.	12:01 A.M.	
AYAKULIK TERMINAL FISHERY						
Ayakulik Section	Ayakulik Early Sockeye	June 9	July 15	Low Water	9:00 P.M.	Dependent on Ayakulik Weir Sockeye Escapement
	Ayakulik Late Sockeye	July 16	August 25	Low Water	9:00/6:00 P.M.	
FRASER TERMINAL FISHERY						
Alitak District	Fraser Sockeye	June 9	June 10	12:00 Noon	9:00 P.M.	1 Day Commercial Test Fishery
	Fraser Sockeye	June 11	June 25	12:00 Noon	9:00 P.M.	Dependent on June 9 Test Fish Results, Positive Build-up Trend, and Fraser Weir Sockeye Escapement
	Fraser Sockeye	June 25	July 15	12:00 Noon	9:00 P.M.	Dependent on Fraser Weir Red Escapement and Escapement Projections.
UPPER STATION TERMINAL FISHERY						
Inner and Outer Upper Sta. Early Sockeye		June 9	July 15	12:00 Noon	9:00 P.M.	Dependent on Upper Sta. Weir Sockeye Escapement
Cape Alitak, Moser/Upper Sta. Late Sockeye Olga Bay Sections		July 16	August 25	12:00 Noon	9:00/6:00 P.M.	

[1] Districts and sections listed below are meant to indicate that these are the districts and sections, either in their entirety or portions thereof, which would be regulated for the targeted systems and/or species.

JUNE MINOR SYSTEMS						
Central, S.W. Afognak, N.W. Afog. Perenosa, S.E. Afog. Big River, Outer Kukak, Ugak, Sitkalidak Sections	Minor Systems Sockeye	Est. 6/14 Est. 6/21 Est. 6/24	Est. 6/16 Est. 6/23 Est. 7/5	12:00 Noon 12:00 Noon 12:00 Noon	9:00 P.M. 9:00 P.M. 9:00 P.M.	1 Day with Closed Water Adjustments 1 Day with Closed Water Adjustments Additional Days Dependent on Minor Systems Weir and/or Aerial Escapement Estimates
KARLUK FISHERY (Even-Year-Cycle Scenario)						
N.W. Kodiak Dist.	Karluk Early Sockeye	June 9	Est. July 15	12:00 Noon	9:00 P.M.	Commercial Test Fishery
Inner and Outer Karluk Sections	Karluk Early and late Sockeye	June 9	Est. Oct. 5	12:00 Noon	9:00P.M./6:00 P.M.	Dependent on Karluk Sockeye Escapement & Coho Escapement after 9/15.
N.W. Kodiak Dist. S.W. Afognak Dist	Karluk Early Sockeye	Est. June 14	Est. June 20	12:00 Noon	9:00 P.M.	1 Day Minimum (Commercial Test Dist. Fishery). Additional time dependent Dependent on Sockeye escapements into Karluk, Ayakulik, and Fraser Systems.
	Karluk Late Sockeye	Est. July 15	Sept. 15	12:00 Noon	9:00/6:00 P.M.	Dependent on Karluk sockeye Escapement and Coho Escapement after 9/15
	Karluk Late Sockeye and Coho	Est. Sept. 16	Est. Oct. 5	12:00 Noon	6:00 P.M.	Dependent on Karluk sockeye Escapement.
	Karluk Early Sockeye	Est. June 21	July 15	12:00 Noon	9:00 P.M.	Dependent on Karluk sockeye Escapement.
(KARLUK FISHERY cont.)						
N.W. Kodiak District	Pinks	July 6	Est. Aug. 24	12:00 Noon	9:00 P.M.	Dependent on Assessed Strength of Westside Pink Return
KARLUK/AYAKULIK COMBINATION FISHERY						
N.W. and S.W. Kodiak Districts	Karluk, Ayakulik Early Sockeye	June 25	July 15	12:00 Noon	9:00 P.M.	Dependent on Karluk and Ayakulik Sockeye Escapement
	Late Sockeye	July 16	Est. Aug. 24	12:00 Noon	9:00/6:00 P.M.	
	Karluk, Ayakulik Pinks (Even Year)	July 15	Est. Aug. 24	12:00 Noon	9:00/6:00 P.M.	Dependent on Karluk and Ayakulik Pink Escapement
GENERAL SALMON FISHERY						
Selected Districts/ Sections	Kodiak Area Pinks	July 6 August 15	August 14 Sept. 5	12:00 Noon 12:00 Noon	9:00 P.M 6:00 P.M	Dependent on Pink Forecast/ In-Season Assessment (Avg. 5 day fishing periods expected)
SPECIFIC CHUM FISHERIES						
Selected Districts/ Sections	Kodiak Area Chums	July 6 August 15	August 14 Sept. 15	12:00 Noon 12:00 Noon	9:00 P.M. 6:00 P.M.	Dependent on Chum In-Season Stock Specific Assessment. (1-5 day fishing periods expected)
SPECIFIC COHO FISHERIES						
Selected Districts/ Sections	Kodiak Area Coho	August 1	October 30	12:00 Noon	9:00/6:00 P.M.	Dependent on Coho Run-Strength Assessment. (1-3 day fishing periods expected)

1/ Districts and sections listed below are meant to indicate that these are the districts and sections, either in their entirety or portions thereof, which would be regulated for the targeted systems and/or species.

KODIAK SALMON MANAGEMENT AREA
1988 COMMERCIAL FISHING TIME
By District and Section



Appendix D.2. Summary of Emergency Orders issued during the commercial salmon fishing season, Kodiak Area, 1988.

E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
30	2:00 P.M. 6/6/88	12:00 Noon 6/9/88	70	12:00 Noon 6/9/88	9:00 P.M. 6/10/88	33	- N.W. Kodiak District	None
						33	- Cape Alitak Section	None
						33	- Moser-Olga B. Section	None
						33	- Humpy/Deadman Section	None
						33	- Outer Ayakulik Sect.	None
		5:00 P.M. 6/9/88	75	5:00 P.M. 6/9/88	9:00 P.M. 6/10/88	28	- Inner Ayakulik Sect.	None
31	3:00 P.M. 6/12/88	9:00 A.M. 6/14/88	42	9:00 A.M. 6/14/88	9:00 P.M. 6/15/88	24	- Inner Ayakulik Sect.	None
		12:00 Noon 6/14/88	45	12:00 Noon 6/14/88	9:00 P.M. 6/15/88	33	- N.W. Kodiak District	None
						33	- Cape Alitak Section	None
						33	- Moser/Olga B. Section	None
						33	- Humpy/Deadman Section	None
						33	- Eastside Kodiak Dist.	None
						33	- Afognak Dist. except Duck, Izhut and Kitoi Sections	None
						33	- Big River Section	None
						33	- Outer Kukak Section	Kaflia River to Stream Terminus
						33	- Outer Ayakulik Sect.	None
32	(HERRING EMERGENCY ORDER)							
33	12:00 Noon 6/22/88	12:00 Noon 6/25/88	33	12:00 Noon 6/25/88	9:00 P.M. 6/26/88	33	- N.W. Kodiak District except Kizhuyak Sect.	None
						33	- Halibut Bay Section	None
						33	- Eastside Kodiak Dist.	Pasagshak Bay to 57°27'54" Saltery River to Stream Terminus
						33	- S.W. Afognak Section	None
						33	- S.E. Afognak Section	None
						33	- Big River Section	None
						33	- Outer Kukak Section	Kaflia River to Stream Terminus

-continued-

E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
34	3:00 P.M. 6/24/88	12:00 Noon 6/26/88	45	12:00 Noon 6/26/88	9:00 P.M. 6/28/88	57	- N.W. Kodiak District	None
						57	- Kizhuyak Section	
		9:00 P.M. 6/26/88	54	9:00 P.M. 6/26/88	9:00 P.M. 6/28/88	57	- Cape Alitak Section	
						57	- Moser/Olga B. Section	
						57	- Humpy/Deadman Section	
						57	- Out. Up. Sta. Section	Out. Up Sta. Section Open.
35	9:00 A.M. 7/1/88	12:00 Noon 7/6/88	123	12:00 Noon 7/3/88	9:00 P.M. 7/8/88	57	- N.W. Kodiak District	None
						57	- Halibut Bay Section	None
						57	- Cape Alitak District	None
						57	- Moser/Olga B. Section	
						57	- Humpy/Deadman Section	
						57	- Eastside Kodiak Dist.	Pasagshak Bay to 57°27'54"
						57	- N.E. Kodiak District **except** Buskin River Section	None
						57	- Afognak District **except** Duck, Izhut Kitoi Bay Sections	None
36	3:00 P.M. 7/8/88	12:00 Noon 7/11/88	69	12:00 Noon 7/11/88	9:00 P.M. 7/13/88	57	- Mainland District **except** Cape Igvak & Wide Bay Sections	None
						57	- Halibut Bay Section	None
		12:00 Noon 7/11/88	69	12:00 Noon 7/11/88	9:00 P.M. 7/15/88	105	- N.W. Kodiak District **except** Zachar B. Sect	None
						105	- Cape Alitak Section	None
						105	- Moser/Olga B. Section	None
						105	- Humpy-Deadman Section	None
						105	- Eastside Kodiak Dist.	Pasagshak Bay to 57°27'54"
						105	- N.E. Kodiak District **except** Buskin River Section	None
						105	- Afognak Dist. **except** Izhut & Kitoi Section	None

-continued-

E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
37	6:00 P.M. 7/10/88	6:00 P.M. 7/11/88	24	6:00 P.M. 7/12/88	6:00 P.M. 7/12/88	24	- Dog Salmon Flats Sect	Dog Salmon Flats Open W. of 154°
		9:00 P.M. 7/13/88	75	9:00 P.M. 7/13/88	9:00 P.M. 7/15/88	48	- Halibut Bay Section	None
38	3:00 P.M. 7/16/88	12:00 Noon 7/18/88	57	12:00 Noon 7/18/88	9:00 P.M. 7/20/88	57	- Halibut Bay Section	None
						57	- Katmai Section	None
						57	- Alinchak Section	None
		12:00 Noon 7/18/88	57	12:00 Noon 7/18/88	9:00 P.M. 7/22/88	105	- N.W. Kodiak District except Zachar B. Sect	
						105	- Cape Alitak Section	None
						105	- Moser/Olga B. Section	None
						105	- Humpy/Deadman Section	None
						105	- Eastside Kodiak Dist.	None
						105	- N.E. Kodiak District	None
						105	- Afognak Dist. except NE Afognak, Shuyak, and Kitoi Sections	
39	11:00 A.M. 7/17/88	6:00 P.M. 7/18/88	69	6:00 P.M. 7/18/88	9:00 P.M. 7/20/88	51	- Dakavak Section	None
						51	- Inner Kukak Section	None
						51	- Outer Kukak Section	None
						51	- Hallo Bay Section	None
						51	- Big River Section	None
		6:00 P.M. 7/18/88	69	6:00 P.M. 7/18/88	9:00 P.M. 7/22/88	99	- N.W. Kodiak Section	None
						99	- Shuyak Section	None
40	3:00 P.M. 7/22/88	12:01 A.M. 7/24/88	39	12:01 A.M 7/24/88	9:00 P.M. 7/27/88	93	- Cape Igvak Section	None
		12:00 Noon 7/25/88	75	12:00 Noon 7/25/88	9:00 P.M. 7/27/88	57	- Big River Section	None
						57	- Hallo Bay Section	None
						57	- Inner Kukak Section	None
						57	- Outer Kukak Section	None
						57	- Dakavak Section	None
						57	- Katmai Section	None
						57	- Alinchak Section	None
						57	- Wide Bay Section	None
		12:00 Noon 7/25/88	75	12:00 Noon 7/25/88	9:00 P.M. 7/28/88	81	- N.W. Kodiak District	None
						81	- Outer Karluk Section	None
						81	- Halibut Bay Section	None
						81	- Cape Alitak Section	None

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E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
40 cont.	3:00 P.M. 7/22/88	12:00 Noon 7/25/88	75	12:00 Noon 7/25/88	9:00 P.M. 7/28/88	81	- Moser/Olga B. Section	None
						81	- Humpy/Deadman Section	None
						81	- Eastside Kodiak Dist.	None
						81	- N.E. Kodiak District	None
						81	- Afognak District **except** Izhut and Kitoi Sections	None
41	3:00 P.M. 7/27/88	9:00 P.M. 7/28/88	30	9:00 P.M. 7/28/88	9:00 P.M. 8/1/88	96	- N.W. Kodiak District	None
						96	- Cape Alitak Section	None
						96	- Moser/Olga B. Section	None
						96	- Eastside Kodiak Dist. **except** Seven Rivers Section	None
						96	- N.E. Kodiak District	None
						96	- Afognak District **except** Kitoi and Izhut Sections	None
42	6:00 P.M. 7/30/88	12:00 Noon 8/1/88	42	12:00 Noon 8/1/88	9:00 P.M. 8/3/88	57	- Seven Rivers Section	None
						57	- Inner Kukak Section	None
						57	- Outer Kukak Section	None
						57	- Dakavak Section	None
						57	- Katmai Section	None
						57	- Alinchak Section	None
						57	- Cape Igvak Section	None
						57	- Wide Bay Section	None
		9:00 P.M. 8/1/88	51.5	9:00 P.M. 8/1/88	9:00 P.M. 8/3/88	48	- N.W. Kodiak District	None
						48	- Cape Alitak Section	None
						48	- Moser/Olga B. Section	None
						48	- Eastside Kodiak Dist. **except** Seven Rivers Section	None
						48	- N.E. Kodiak District	None
						48	- Afognak Dist. **except** Izhut and Kitoi Sections	None
43	4:00 P.M. 8/2/88	6:00 P.M. 8/3/88	26	6:00 P.M. 8/8/88	9:00 P.M. 8/5/88	51	- Out. Up. Stat. Sect.	Outer Upper Sta. Section Open

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E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
43 cont.	4:00 P.M. 8/2/88	9:00 P.M. 8/3/88	29	9:00 P.M. 8/3/88	9:00 P.M. 8/5/88	48	- N.W. Kodiak District	None
						48	- Cape Alitak Section	None
						48	- Moser/Olga B. Section	None
						48	- Eastside Kodiak Dist.	None
						48	- N.E. Kodiak District	None
						48	- Afognak District	None
						48	except S.E. Afognak,	
						48	Duck, Izhut, and	
						48	Kitoi Sections	
						48	- Katmai Section	None
						48	- Alinchak Section	None
						48	- Cape Igvak Section	None
						48	- Wide Bay Section	None
44	3:00 P.M. 8/6/88	12:00 Noon 8/8/88	45	12:00 Noon 8/8/88	9:00 P.M. 8/10/88	57	- Inner Kukak Section	None
						57	- Outer Kukak Section	None
						57	- Alinchak Section	None
						57	- Cape Igvak Section	None
						57	- Wide Bay Section	None
		12:00 Noon 8/8/88	45	12:00 Noon 8/8/88	9:00 P.M. 8/11/88	81	- N.W. Kodiak District	None
						81	- Cape Alitak Section	None
						81	- Moser-Olga B. Section	Outer Upper Sta. Section Open
						81	- Eastside Kodiak Dist. except 7-Rivers Section	None
						81	- N.E. Kodiak District	None
							- Afognak District except S.E. Afognak Duck, Izhut, and Kitoi Sections	None
45	6:00 P.M. 8/10/88	9:00 P.M. 8/14/88	3	9:00 P.M. 8/10/88	9:00 P.M. 8/14/88	96	- Outer Kukak Section	None
							- Cape Igvak Section	None
							- Wide Bay Section	None
		6:00 P.M. 8/11/88	24	6:00 P.M. 8/11/88	9:00 P.M. 8/14/88	75	- Seven Rivers Section	None
			27	9:00 P.M. 8/11/88	9:00 P.M. 8/14/88	72	- N.W. Kodiak District	None
						72	- Cape Alitak Section	None
						72	- Moser/Olga B. Section	None
						72	- Outer Up. Sta. Sect.	None
						72	- Eastside Kodiak Dist.	None

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E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
45 cont.	6:00 P.M. 8/10/88	6:00 P.M. 8/11/88	27	9:00 P.M. 8/11/88	9:00 P.M. 8/14/88	72	- Afognak Dist. except S.E. Afognak, Duck, Izhut & Kitoi Section	None
46	3:00 P.M. 8/13/88	6:00 P.M. 8/14/88	27	6:00 P.M. 8/14/88	6:00 P.M. 8/17/88	72	- Halibut Bay Section	None
						72	- Inner Up. Sta. Sect.	Inner Up. Sta. Section Open
						72	- S.E. Afognak Section	None
						72	- Duck Bay Section	None
						72	- Izhut Section	None
			30	9:00 P.M. 8/14/88	6:00 P.M. 8/17/88	69	- N.W. Kodiak District	None
						69	- Cape Alitak Section	None
						69	- Moser/Olga B. Section	None
						69	- Outer Up. Sta. Sect.	Outer Up. St. Section Open
						69	- Eastside Kodiak Dist.	None
						69	- S.W. Afognak Section	None
						69	- N.E. Afognak Section	None
						69	- Raspberry Sts. Sect.	None
						69	- Outer Kukak Section	None
						69	- Cape Igvak Section	None
						69	- Wide Bay Section	
47	2:00 P.M. 8/16/88	6:00 P.M. 8/17/88	28	6:00 P.M. 8/17/88	6:00 P.M. 8/20/88	72	- N.W. Kodiak District	None
						72	- Cape Alitak Section	None
						72	- Moser/Olga B. Section	None
						72	- Outer Up. Sta. Sect.	Outer Up. Sta. Section Open
						72	- Inner Up. Sta. Sect.	Inner Up. Sta. Section Open
						72	- Eastside Kodiak Dist. except In. and Out. Ugak Sections	7-Rivers to Stream Terminus
						72	- N.E. Kodiak District	None
						72	- Afognak Dist. except Shuyak & Kitoi Sect.	None
		6:00 P.M. 8/17/88	28	6:00 P.M. 8/17/88	6:00 P.M. 8/20/88	72	- N.W. Afognak Section	None
						72	- Perenosa Section	None
48	3:00 P.M. 8/21/88	12:00 Noon 8/23/88	45	12:00 Noon 8/23/88	6:00 P.M. 8/25/88	54	- N.W. Kodiak District	None

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E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
48 cont.	3:00 P.M. 8/21/88	12:00 Noon 8/23/88	45	12:00 Noon 8/23/88	6:00 P.M. 8/25/88	54	- Cape Alitak Section	None
						54	- Moser/Olga B. Section	None
						54	- Humpy/Deadman Section	None
						54	- Outer Up. Sta. Sect.	Out. Up. Sta. Section Open
						54	- Eastside Kodiak Dist.	None
						54	- N.E. Kodiak District **except** Buskin Section	None
						54	- S.E. Afognak Section	None
						54	- Duck Bay Section	None
						54	- Izhut Bay Section	None
						54	- S.W. Afognak Section	None
						54	- Big River Section	None
						54	- Hallo Bay Section	None
						54	- Dakavak Section	None
49	3:00 P.M. 8/27/88	12:00 Noon 8/30/88	69	12:00 Noon 8/30/88	6:00 P.M. 9/1/88	54	- N.W. Kodiak District **except** Inner Uganik Section	None
						54	- Outer Ayakulik Sect.	None
						54	- Inner Ayakulik Sect.	Open north of 57°13'06"
						54	- Cape Alitak Section	None
						54	- Moser/Olga B. Section	None
						54	- Outer Up. Sta. Sect.	Out. Up. Sta. Section Open
				12:00 Noon 8/30/88	6:00 P.M. 8/31/88	30	- N.E. Kodiak District **except** Buskin Section	None
						30	- S.E. Afognak Section	Litnik River to Subsistence Mkrs.
						30	- Duck Bay Section	None
						30	- Izhut Bay Section	None
						30	- N.W. Afognak Section	None
						30	- S.W. Afognak Section	None
						30	- Raspberry Sts. Sect.	None
						30	- Big River Section	None
						30	- Hallo Bay Section	None
						30	- Outer Kukak Section	None
50	3:00 P.M. 8/31/88	6:00 P.M. 9/1/88	27	6:00 P.M. 9/1/88	6:00 P.M. 9/4/88	72	- Outer Ayakulik Sect.	None
						72	- Inner Ayakulik Sect.	Open North of 57°13'06"

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E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
50 cont.						72	- Cape Alitak Section	None
						72	- Moser/Olga B. Section	None
						72	- Outer Up. Sta. Sect.	Out. Up. Sta. Section Open
51	3:00 P.M. 9/2/88	6:00 P.M. 9/4/88	51	6:00 P.M. 9/4/88	6:00 P.M. 9/10/88	144	- Outer Ayakulik Sect.	None
						144	- Inner Ayakulik Sect.	Open North of 57°13'06"
						144	- Cape Alitak Section	None
						144	- Moser/Olga B. Section	None
						144	- Outer Up. Sta. Sect.	Out. Up. Sta. Section Open
		12:00 Noon 9/6/88	93	12:00 Noon 9/6/88	6:00 P.M. 9/7/88	30	- S.W. Afognak Section	None
						30	- Raspberry Str. Sect.	None
						30	- S.E. Afognak Section	Litnik River to Subsistence Mkrs.
						30	- Duck Bay Section	None
						30	- Izhut Bay Section	None
						30	- N.E. Kodiak District **except** Buskin Section	None
		12:00 Noon 9/6/88	93	12:00 Noon 9/6/88	6:00 P.M. 9/10/88	102	- N.W. Kodiak District **except** Inner Uganik Section	None
						102	- Halibut Bay Section	None
						102	- Inner Ayakulik Sect.	Open South of 57°13'06"
						102	- Outer Akalura Section	Out. Akalura Section Open
						102	- Seven Rivers Section	None
						102	- Big River Section	None
						102	- Hallo Bay Section	None
						102	- Katmai Section	None
						102	- Cape Igvak Section	None
						102	- Wide Bay Section	None
52	12:00 Noon 9/9/88	6:00 P.M. 9/10/88	24	6:00 P.M. 9/10/88	6:00 P.M. 9/16/88	144	- N.W. Kodiak District **except** Inner Uganik Section	None
						144	- Halibut Bay Section	None
						144	- Cape Alitak Section	None
						144	- Moser/Olga B. Section	None

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E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
52 cont.	12:00 Noon 9/9/88	6:00 P.M. 9/10/88	24	6:00 P.M. 9/10/88	6:00 P.M. 9/16/88	144	- Outer Up. Sta. Sect.	Outer Upper Sta. Section Open
						144	- Outer Akalura Section	Outer Akalura Section Open
		12:00 Noon 9/12/88	96	12:00 Noon 9/12/88	6:00 P.M. 9/13/88	30	- S.W. Afognak Section	None
						30	- Raspberry Str. Sect.	None
						30	- S.E. Afognak Section	Litnik River to Subsistence Mkrs.
						30	- Duck Bay Section	None
						30	- Izhut Bay Section	None
						30	- N.E. Kodiak District except Buskin Section	
		12:00 Noon 9/12/88		12:00 Noon 9/12/88	6:00 P.M. 9/16/88	102	- Mainland Dist. except Dakavak, Inner Kukak, and Outer Kukak Sect.	None
53	3:00 P.M. 6/19/99	6:00 P.M. 9/22/88	69	12:00 Noon 9/19/88	6:00 P.M. 9/22/88	78	- N.W. Kodiak District except Inner Uganik Section	None
						78	- Halibut Bay Section	None
						78	- Inner Ayakulik Sect.	None
						78	- Outer Ayakulik Sect.	None
						78	- Cape Alitak Section	None
						78	- Moser/Olga B. Section	None
						78	- Humpy/Deadman Section	None
						78	- Outer Up. Sta. Sect.	Out. Up. Sta. Section Open
						78	- Outer Akalura Section	Out. Akalura Section Open
						78	- Eastside Kodiak Dist. except Sitkalidak Section	None
						78	- N.E. Kodiak District	Buskin Section Open to lat. of Cliff Pt.
						78	- Mainland District	None
54	3:00 P.M. 9/21/88	6:00 P.M. 9/22/88	27	6:00 P.M. 9/22/88	12:00 Noon 10/31/88	942	- N.W. Kodiak District except Inner Uganik Section	None
						942	- Halibut Bay Section	None
						942	- Inner Ayakulik Sect.	None

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E.O. No.	Issued Time/Date	Effective Time/Date	Notice (Hrs.)	Fishing Period Begin	Fishing Period End	Time Hrs.	Management Units Open	Closed Water Adjustments
54 cont.	3:00 P.M. 9/21/88	6:00 P.M. 9/22/88	27	6:00 P.M. 9/22/88	12:00 Noon 10/31/88	942	- Outer Ayakulik Sect.	None
						942	- Cape Alitak Section	None
						942	- Moser/Olga B. Section	None
						942	- Humpy/Deadman Section	None
						942	- Outer Up. Sta. Sect.	Out. Up Sta. Section Open
						942	- S.W. Afognak Section	
						942	- Outer Akalura Section	Outer Akalura Section Open
						942	- Eastside Kodiak Dist. except Sitkalidak Section	None
						942	- Eastside Kodiak Dist. except Sitkalidak Section	None
						942	- N.E. Kodiak District	Buskin Section Open to lat. of Cliff Pt.
						942	- Mainland District	None

Appendix E.1. Salmon escapement survey data, Kodiak Area, 1988.[1]

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Selief												
251-101	9- 1	Prokopowich	g	g	g	0	2000	4000	0	-	900Co	Looks good for this time.
Malina River												
251-105	9- 1	Prokopowich	g	g	g	0	2000	74500	0	200Co	-	8,000 pinks in creek between lakes included in stream count. Coho at outlet of lower lake.
Malka Bay												
251-201	9- 1	Prokopowich	g	g	g	0	0	200	0	300P	-	-
Malina Bay												
251-202	9- 1	Prokopowich	g	g	g	0	0	4000	0	2000P	-	-
251-202A	9- 1	Prokopowich	g	g	g	0	0	400	0	200P	-	-
251-402	8-15	Prokopowich	g	g	g	0	0	75000	0	7000P	-	Looks excellent.
East Arm Creek												
251-404	7-15	Prokopowich	g	g	g	0	0	0	0	-	10500P	Fish bright, all inside closed waters.
251-404	8-15	Prokopowich	g	g	g	0	0	25000	0	15000P	-	Looks very good.
Ester Lagoon Creek												
251-503	8-15	Prokopowich	g	g	g	0	0	0	0	1800P	-	-
SW Redfox Creek												
251-504	8-15	Prokopowich	g	g	g	0	0	500	0	-	-	Coho jumpers off mouth.
251-504	8-15	Prokopowich	g	g	g	0	0	0	0	6000P	-	-
SE Redfox Creek												
251-505	8-15	Prokopowich	g	g	g	0	0	0	0	23000P	-	Looks excellent.
Big Waterfall												
251-821	8-15	Prokopowich	g	g	g	0	0	0	0	9000P	7000P	Good show of traveling fish.
Little Waterfall												
251-822	8-15	Prokopowich	g	g	g	0	0	11500	0	3000P	25000P	1,500 pinks about fish pass by cabin.

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Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Portage Creek												
251-825	8-15	Prokopowich	g	g	g	0	0	10000	0	65000P	10000P	Looks very good. Few coho jumpers showing.
Seal Creek												
251-901	8-15	Prokopowich	g	g	g	0	0	0	0	21500P	-	-
251-901	8-15	Prokopowic	g	g	g	0	0	11000	0	21500P	-	Est. 5,000 fish above steep pass.
West Seal Creek												
251-902	8-15	Prokopowich	g	g	g	0	0	0	0	3000P	-	-
Long Tonki												
252-101	9- 1	Prokopowich	g	g	g	0	500	2000	0	225Co	-	-
Short Tonki												
252-102	9- 1	Prokopowich	g	g	g	0	100	7000	0	-	-	Most pinks at head of lagoon.
East Saposa Creek												
252-301	8- 9	Prokopowich	f	f	f	0	0	0	0	-	8000P	Visibility only fair.
Grassy Lagoon Creek												
252-302	9- 1	Prokopowich	g	g	g	0	0	3200	0	6000P	-	Fish at mouth in lagoon.
Saposa Bay												
252-306	7-25	Prokopowich	g	g	g	0	0	0	0	-	5500P	Pinks are bright. Most outside closed waters.
252-306	9- 1	Prokopowich	g	g	g	0	0	9800	0	-	-	-
Ruth Bay												
252-307	9- 1	Prokopowich	g	g	g	0	0	250	0	200P	-	-
Left Hand Bay												
252-309	9- 1	Prokopowich	g	g	g	0	0	800	0	-	-	-
Kitoi Bay												
252-32	7-25	Prokopowich	g	g	g	0	0	0	0	-	2700P	Of which 20,000 at hatchery net.
252-32	8- 9	Prokopowich	f	f	f	0	0	0	0	-	11000P	Still not very good visibility.
252-32	8-15	Prokopowich	g	g	g	0	0	0	0	-	169000P	Jaws - 9,000, Bay inside jaws 75,000 P, at net 85,000 pinks; 31 seiners fishing Izhut.

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Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Danger Bay												
252-33	7-25	Prokopowich	g	g	g	0	0	0	0	-	40000P	Pinks outside closed waters. West side of bay.
N.E. Danger Creek												
252-331	7-25	Prokopowich	g	g	g	0	0	0	0	1200P	-	-
252-331	9- 1	Prokopowich	g	g	g	0	150	200	0	300Co	-	Poor show of coho.
Big Danger												
252-332	7-25	Prokopowich	g	g	g	0	0	0	0	7500P	-	-
252-332	9- 1	Prokopowich	g	g	g	0	0	28000	500	5000P	-	Good distribution of pink escapement. Most chums in west fork.
East Danger Creek												
252-333	9- 1	Prokopowich	g	g	g	0	0	2200	0	2600P	-	-
N.W. Danger Creek												
252-335	9- 1	Prokopowich	g	g	g	0	0	250	0	200P	-	-
Marka Bay												
252-343	7-15	Prokopowich	g	g	g	0	0	0	0	-	-	Nothing seen. One seiner at markers - not fishing.
252-343	7-25	Prokopowich	e	e	e	0	0	0	0	50000P	-	All fish inside closed waters. Bright schools outside markers.
252-343	8-15	Prokopowich	g	g	g	0	0	90000	0	30000P	2000Co	Sportfishermen, 2 seiners at markers. Escapement looks excellent.
252-343	9- 1	Prokopowich	g	g	g	0	1000	0	0	-	600Co	Fish in stream at lower end of creek.
Campbell Lagoon												
253-114	7-15	Chatto	f		g	0	0	0	0	-	-	Surveyed lower mile of stream and lagoon. No fish seen. Low tide 1040 - 1047 hours.
Little River												
253-115	4-28	Chatto	p	p	p	0	0	0	0	-	-	Lake and outlet still frozen. Surveyed from lake down to lagoon. Observed one steelhead one mile upstream from lagoon.
253-115	7-15	Chatto	f		g	0	0	0	0	100R	-	Surveyed lake and tributaries. 4,300 reds in lake off tributaries. Numerous fish in streams (tributaries). Surveyed downstream below forks. 200 fish in lake outlet. No fish seen downstream. Visibility poor downstream. 1025-1040 hours.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Little River												
253-115	8- 4	Prokopowich	g	g	g	0	0	137500	0	5500P	-	Looks excellent. Gillnet at markers plugged with fish.
S. Arm Uganik												
253-121	7-15	Chatto	p		g	0	0	0	0	-	-	Surveyed 2 miles upstream. No fish. Visibility poor. 100 dogs off mouth in flats, 3,000 fish staged in flats bay interface. Many jumpers. Low tide 1105 to 1115 hours.
253-121	8-30	Prokopowich	g	g	g	0	0	1500	0	-	150Co	-
Uganik River												
253-122	8- 4	Prokopowich	g	g	g	12000	0	60000	20000	7000P	75000P	Reds at tributaries to lake. Chum escapement looks good. Good show of pinksin bay.
253-122	8-30	Prokopowich	g	g	g	0	0	84000	15000	-	800Co 19000P	Pinks in bay will top off escapement fine.
253-122	9- 7	Prokopowic	g	g	g	0	0	78000	0	-	25000P	Surveyed only lower end of river. 20,000 of the fish in bay outside markers
253-33	7-15	Prokopowich	g	g	g	0	0	0	0	-	48000P	All fish inside closed waters. Two seiners at markers.
Terror River												
253-331	7-14	Malloy	f	f	g	0	0	500	1200	-	40000P 15000Ch	Looks good for this date. Water flow good.
253-331	7-21	Malloy	f	f	g	0	0	400	1800	-	58000P 20000Ch	Build-up looks excellent for this date. Water flow good.
253-331	7-26	Malloy	g	g	e	0	0	8800	5800	-	78000P 52000Ch	Chum build-up best ever seen. Return for both pinks and chums excellent. Water flow still good.
253-331	8- 4	Prokopowich	e	e	e	0	0	71500	15000	52100P 4400Ch	23000P	-
253-331	9- 8	Prokopowich	e	e	e	0	0	52900	10300	-	-	Gillnet full of dead salmon on Tidal Flate. Est. 1,000 fish in net. Above 4 mile creek 1,900 P, 100 chum, Mainstream 41,5500 P, 9,000 chum, East Slough 5,000 pinks, 900 chum, Consternation 1,000 P, 100 chums, Bear Creek 0-blocked by Beaver Dam, Ouzel Creek 2,400 P, 200 chums.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Baumann's												
253-332	8- 4	Prokopowich	g	g	g	0	0	6000	0	-	14000P	Fish in bay between Baumans and Halgranson's creek.
7-Mile Beach												
254-103	8-30	Prokopowich	g	g	g	0	0	5000	0	-	-	-
Uyak River												
254-202	7-15	Chatto	g		f	0	0	15	300	-	-	Surveyed upsstream 3 miles. 15 pinks in stream plus 200 dogs, 100 dogs in east slough of Uyak, jumpers, 1,000+ in bay outside of flats. 1300 - 1330 hours. Low tide.
254-202	8- 4	Barnes	g		f	0	0	6500	100	-	-	Surveyed bay and upstream for 1.5 miles. Large mass of pinks? in bay flats,numerous jumpers.
254-202	8-30	Prokopowich	g	g	g	0	0	85000	25000	10000P	-	Looks real good.
East Uyak Creek												
254-203	7-15	Chatto	f		g	0	0	0	0	-	-	Surveyed 2 miles upstream. No fish. 2,000 dogs off mouth in bay. 1300 to 1330 hours, low tide.
254-203	8- 4	Barnes	g		f	0	0	50	50	-	-	Surveyed 1 mile upstream. Scattered chums upstream, no jumpers observed in flats off stream mouth.
Browns Lagoon												
254-204	7-15	Chatto	p			0	0	0	0	-	-	Surveyed up to fall. No fish seen. 1256 - 1305 hours.
254-204	8- 4	Prokopowich	g	g	g	0	0	30000	0	3500P	-	Doesn't look very strong.
254-204	8-10	Prokopowich	g	g	g	0	0	44000	0	1500P	-	Fish distribution good but could use a few more.
Zachar River												
254-301	4-29	Chatto	g	g	g	0	0	0	0	-	-	Surveyed 11 miles upstream. No fish seen
254-301	7-15	Chatto	p		g	0	0	0	0	-	-	Surveyed 8 miles upstream. Visibility poor (glacial). No fish observed in clear water side pools. 1220 - 1230 hours. Low tide jumpers in bay.
254-301	8- 3	Barnes			f	0	0	0	0	-	-	Large ball of fish off mouth of Zachar. Numerous jumpers.
254-301	8- 4	Prokopowich	g	g	g	0	0	30000	75000	-	8000P 18500Ch	Partial survey of bay. Chum escapement looks excellent.
Spiridon River												
254-401	4-29	Chatto	p		g	0	0	0	0	-	-	Surveyed 7-1/2 miles upstream. Observed 8 dolly varden 3 miles upstream frombay.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Spiridon River												
254-401	7-15	Chatto	p		g	0	0	0	0	-	-	Surveyed 12 miles upstream. Visibility poor (glacial). No fish observed in clear water side pools. 1300 - 1200 hours. Low tide jumpers in weasel cove.None out in flats.
254-401	8- 4	Prokopowich	f	f	f	0	0	0	15000	-	75000Ch	Main river silty. Excellent show in bay.
Karluk River												
255-101	7-30	Prokopowich	g	g	g	0	0	0	0	-	-	Est. 80,000 P. off lagoon entrance. Est. 250,000 fish mixed in lagoon to weir. Est. 90% pinks.
255-101	8-10	Prokopowich	g	g	g	0	0	0	0	-	-	Mixed 300,000. No estimate in lagoon. Jumpers to 500 yards offshore. Fishappear to be mostly pinks.
255-101	8-30	Prokopowich	g	g	g	0	0	0	0	170000R 170000P	-	Fish below weir in lagoon. Fair show of jumpers off mouth.
255-101	9- 7	Prokopowich	f	f	f	0	0	0	0	-	-	100,000 mixed fish in lagoon below weir, poor show off mouth. Appear to be mostly reds, est. 8-10,000 coho.
Low Cape												
256-101	8- 3	Chatto	f			0	0	150	0	-	-	Surveyed fish up for 1.5 miles. Most fish within lower 1/2 mile.
N. Low Cape												
256-102	8- 3	Chatto	p			0	0	0	0	-	-	Water turbid. No fish seen in stream.
Old Red River												
256-202	8- 3	Chatto	p			0	0	0	0	-	-	Surveyed from mouth upstream, too dark. Visibility poor. Visibility good in lake. No fish.
256-20A	8- 2	Chatto	f			0	0	0	0	-	-	Surveyed east fork from Sturgeon Pass upstream to donut lake, observed very few kings but lots of king reds between pass and just upstream from Conneticut Creek Pass before carry on.
Caramel Creek												
256-301	7-12	Chatto	e		g	0	0	0	0	-	-	Surveyed entire lagoon and Caramel stream. No fish.
256-301	7-22	Chatto	e		g	0	0	0	0	-	-	Surveyed entire lagoon and Caramel Stream. No fish. Mid tide-no jumpers.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Visibility Mou	Visibility Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Caramel Creek												
256-301	8- 3	Chatto	g		e	0	0	0	0	-	-	Build up - 4,000 P. - Mouth. Surveyed entire lagoon and stream. Low tide. 1,000 pinks in lagoon just inside mouth 1/8 mile upstream. No fish in Caramel Creek.
Halibut Bay												
256-302	7-12	Chatto	e			0	0	0	0	-	-	Surveyed entire stream. No fish.
256-302	7-22	Chatto	e			0	0	0	0	-	-	Surveyed entire stream. No fish.
256-302	8- 3	Chatto	e			0	0	0	0	-	-	Surveyed entire stream and lagoon. Low tide. No fish.
Grant's Lagoon Cr.												
256-303	7-22	Chatto	g		g	0	0	0	0	-	-	Surveyed entire lagoon and mouth both streams, no fish, no jumpers.
256-303	8- 3	Chatto	e			0	0	0	0	-	-	150 build up fish in mouth. Surveyed entire lagoon and mouth both streams. No fish in streams but 5,400 pinks in lagoon.
Sturgeon River												
256-401	4-28	Chatto	f			0	0	0	0	-	-	Survey main fork to lagoon for steelhead. Only one fish 3.5 mi. up from lagoon. No reds observed. Visibility by lagoon poor, snow squalls.
256-401	4-28	Chatto	f			0	0	0	0	-	-	Surveyed main fork to lagoon for steelhead. Only one fish 3.5 miles up fromlagoon, no reds observed. Visibility by lagoon poor, snow squalls.
256-401	7-12	Chatto	g		f	0	0	0	53200	5500Ch	-	Low tide, no jumpers off mouth of lagoon, 10,000 dogs within first mile of stream, 40,000 dogs within 3-4 miles below forks, 3,000 dogs between mi 12- 15, 200 dogs in south fork. Total number dogs bay and stream 58,700 fish. Numerous reds between rm 12 to 15 on main stem river.
256-401	7-22	Chatto	f		f	0	0	0	0	2000P	-	No estimate in upriver but active spawning above forks extending up approximately 1.5 miles past upper forks. Below 1st forks scattered chums. Visibility fair. Fresh pinks in lagoon. 7,500 dogs in mouth, 1,500 dogs inbay.
256-401	8- 3	Chatto			g	0	0	0	0	1000P	-	Surveyed river mouth at head of lagoon and south side of lagoon 1,000 pinks.Very low tide.

-Continued-

Appendix E.1. (page 8 of 17)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Sturgeon River												
256-401	8-30	Prokopowich	g	g	g	0	5500	5000	0	-	-	Only sampled lower end of river. Coho in lagoon.
256-401a	7-12	Chatto	g		f	0	0	0	53200	-	5500Ch	Low tide, no jumpers off mouth of lagoon, 10,000 dogs within first mile of stream, 40,000 dogs within 3-4 miles below forks, 3,000 dogs between mile 12to 15, 200 dogs in South Fork. Total number dogs bay and stream 58,700 fishNumerous reds between mi. 12 to 15 on main stem river.
East Sturgeon River												
256-402	7-12	Chatto	g			0	0	0	5700	-	-	Surveyed bay section outside of mouth, no fish. 90% of fish just below forksand above, no active spawning observed. (No reds).
256-402	7-22	Chatto	g			0	0	0	0	-	-	*Surveyed entire stream. Estimate same as 7/12. Active spawning observed. Approximately 3 miles up from forks on South Fork stream dry. No fish in North Fork. Approximately 1,000 dogs in lagoon off mouth.
256-402	8-22	Chatto	e			0	0	200	2000	1000P	-	Surveyed entire stream, no fish in North Fork. All fish, chums and carcass-es located from 1 mile below forks upstream into east fork and above for 1.5miles.
Little Sukhoi												
257-101	8- 3	Chatto	g			0	0	0	0	-	-	Surveyed entire stream. No fish.
Big Sukhoi												
257-102	8- 3	Chatto	f			0	0	0	200	-	-	Surveyed lagoon and both stream forks. Some fish in lagoon, very few. Species unknown. Numerous chum spawners in N.E. fork. Very little spawningin N.W. fork.
Silver Salmon Creek												
257-303	6-24	Prokopowich	g	g	g	3000	0	0	0	2000R	-	-
257-303	7-12	Chatto	e			0	0	0	0	-	-	Surveyed lagoon, river and lakeshore tributaries. No fish seen.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Silver Salmon Creek												
257-303	8- 3	Chatto	e			0	0	0	0	-	-	Surveyed lagoon, lake and tributaries, 100 R off stream tributary mouth. 150+ in main tributary, 5 R in N.E. tributary, no fish in lagoon.
257-303	8-18	Chatto	g			500	0	0	0	-	-	100 fish spawning on beach east side of lake. 50 fish spawning in stream between lake and lagoon, spawners in both tributaries of lake all the way upto ends of tribs.
Upper Station												
257-304	6-24	Prokopowich	g	g	g	3000	0	0	0	5000R	-	Reds in stream from weir to lagoon.
257-40	6-24	Prokopowich	g	g	g	6000	0	0	0	60000R	88000R	Total of 154,000 reds, of which 84,000 in closed waters. Iverson Bight 8,000 reds, Horse Marine to Burkholder 10,000 reds, Burkholders to Narrows 50,000 reds, Omlids to Barkers 20,000 reds. Very good show of jumpers.
Horse Marine												
257-402	7-12	Chatto	e			400	0	0	0	2000R	-	2,000 fish staged below mouth of river in lagoon. 400 in river midway between falls and mouth. 5-6 fish above falls. No fish in lake.
257-402	7-22	Chatto	e		g	5600	0	0	0	2000R	-	1,000 reds at mouth, 600 between falls and outlet of lake, 1,000 SE of lake outlet, 4,000 along north shore of lake. Active spawning along North Shore of lake. 1015 hours start of survey.
257-402	7-30	Prokopowich	g	g	g	18000	0	0	0	-	-	Most reds in lake, schooled northwest side.
257-402	8-18	Chatto	g		f	6000	0	2200	0	300Ch	-	300 chums at lagoon mouth. Jumpers in lagoon. 2,000 pinks at stream mouth below falls and 200 pinks at lake outlet. All sockeye in lake. Heavy spawning along NE shore of lake.
Dog Salmon												
257-403	8-10	Prokopowich	g	g	g	0	0	0	0	28500P	19000P	Iverson's bight - 3,000 pinks. Horse Marine - 16,000 pinks along beach. All fish in closed waters.

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Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Talifson's Creek												
257-404	7-22	Chatto	f			0	0	0	500	-	-	Surveyed stream only. Estimate 500 or less dogs in ssystem. Most fish in upper river.
Deadman River												
257-502	7-12	Chatto	f			0	0	0	0	-	-	Surveyed lower mile of stream and inner part of bay. No fish seen in stream. Bay visibility marginal.
257-502	7-22	Chatto	f			0	0	4500	4800	-	-	No jumpers in bay. Low tide fish up past forks into east fork 1.5 miles. 6Chums and pinks in both forks leading to bay.
257-502	7-25	Brennan				0	0	500	2000	-	-	-
257-502	7-30	Prokopowich	g	g	g	0	0	0	0	4500P	-	Looks weak for this time.
257-502	8- 3	Chatto	g		f	0	0	5000	200	-	-	Few jumpers in bay. Surveyed upstream from bay for 1.5 miles into N.E. Fork
257-502	8-18	Chatto	g		f	0	0	5300	0	-	900P	All pinks in lower 2 miles of river. 900 pinks school in NE side of bay.
257-502	8-30	Prokopowich	g	g	g	0	0	36000	10000	-	-	Nothing showing off mouth. W.F. 15,000 P, E.F. 21,000 P.
Alpine Cove Creek												
257-503	7-25	Brennan	g	g	g	0	0	0	0	-	-	-
257-503	7-30	Prokopowich	g	g	g	0	0	0	500	-	-	Nothing seen in bay.
N.E. Portage												
257-601	8- 3	Chatto	g			0	0	0	300	-	-	Jumpers in head of bay. Stream dry 1 mile upstream.
Sulua Pink Creek												
257-602	7-25	Brennan	g	g	g	0	0	0	0	-	-	-
257-602	8- 3	Chatto	g			0	0	0	50	-	-	Surveyed 1/2 mile of stream. 50 chums in one hole.
Sulua Chum Creek												
257-603	7-25	Brennan	g	g	g	0	0	200	0	300P	-	Dogs laying in channel on flats and in lower river.
257-603	7-30	Prokopcwich	g	g	g	0	0	0	0	4500Ch	-	Fish look bright.
257-603	8- 3	Chatto				0	0	50	50	-	-	Ssurveyed mouth and upstream for 2 miles. Water level extremely low. Build-up 1,000 D in mouth.

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Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Toms Creek												
257-604	7-30	Prokopowich	g	g	g	0	0	0	0	2000P	-	Additional 2,000 pinks scattered along beaches.
East Portage Creek												
257-605	8- 3	Chatto	e			0	0	0	0	-	-	Stream dry.
Humpy River												
257-701	7-25	Brennan	g	g	g	0	0	1000	0	7000P	-	No fish showing in Upper Humpy, all down in lower two miles.
257-701	7-30	Prokopowich	g	g	g	0	0	1000	0	70000P	-	Good water flow. Should be more fish in closed water area.
257-701	8- 3	Chatto	g			0	0	11250	0	-	-	Build up - 10,000 P. - Mouth. Surveyed approximately 9 miles upstream from mouth. Lots of jumpers off mouth.
257-701	8-10	Prokopowich	g	g	g	0	0	85000	0	35000P	-	Doesn't look as good from Tom's Creek to Humpy as it should and should look better off mouth. Fish distribution in creek good.
Shag Bluff Creek												
257-702	7-25	Brennan	g	g	g	0	0	0	0	1500P	-	-
Shearwater Bay Creek												
258-202	7-25	Brennan	g	g	g	0	0	50	10	-	4000Ch	Dogs in two large balls along beach out past old cannery.
N.Kiliuda Creek												
258-206	8- 9	Prokopowich	g	g	g	0	0	0	5000	-	-	-
W. Kiliuda Creek												
258-207	8-18	Chatto	g		f	0	0	200	20000	-	2000P 1000Ch	All chums seen were scattered from mouth of stream upstream for approximate-ly 1.5 miles. 1,000 chums and 2,000 pinks in bay flats.
258-207	8-30	Prokopowich	g	g	g	0	0	19000	3500	-	-	Sample portion - 6,000 P, 1,000 chum.
Marker Grove Creek												
258-211	7-25	Brennan	g	g	g	0	0	0	0	-	12000P	Fish laying in balls along beach from Pivot Point inside. 8 purse seiners working.

-Continued-

Appendix E.1. (page 12 of 17)

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Barling Creek												
258-522	7-25	Brennan	g	g	g	0	0	1800	0	-	3000P	-
258-522	8- 9	Prokopowich	p	p	p	0	0	8000	0	-	-	Poor visibility off mouth and in bays. Good show of jumpers.
258-522	8-18	Chatto	g			0	0	6500	150	-	2000P	All pinks in stream below forks, 150 chums on west fork. 2,000 pinks in bayoff stream mouth.
258-522	8-30	Prokopowich	g	g	g	0	0	20000	500	15000P	-	-
Kaiugnak Point												
258-541	8-18	Chatto	g		f	0	0	20000	0	-	-	All fish within first mile of stream.
258-541A	8-18	Chatto	f			0	0	0	0	-	-	No fish seen. Looks like impassable falls 300 yards upstream.
Kaiugnak Lagoon												
258-542	7-25	Brennan	f	f	f	0	0	0	0	-	5000P	10 jumpers/minute at one spot at far side of lagoon (near spit) - couldn't see schools, fish in kelp. 2 big schools outside spit along beach.
258-542	8-18	Chatto	g	f	f	0	0	0	5000	-	-	Numerous jumpers in bay (big bright fish) all chums located throughout stream entire length.
Kaguyak Bay Creek												
258-602	7-25	Brennan	g	g	g	0	0	700	0	4200P	1000P	Pinks in stream just starting up; bay fish way out on opposide side along beach.
258-602	7-30	Prokopowich	g	g	g	0	0	0	8020	7000Ch	-	Looks good. Few bright schools in bay.
Seven River												
258-701	7-25	Brennan	g	g	g	0	0	400	0	6000P	-	Pinks just starting upriver, not much beyond first 1/4 mile; some balls of fish to south, moving south. Hard to see in kelp, mud, wind chop (2000+).
258-701	7-30	Prokopowich	e	e	e	0	0	5000	0	-	75000P	Low water in creek. Visibility excellent.
258-701	8- 9	Prokopowich	f	f	f	0	0	0	0	37500P	-	Good show at mouth - ceiling too low to check creek.
258-701	8-10	Prokopowich	g	g	g	0	0	106000	0	65000P	55000P	N.F. 26,000, S.F. 10,000, Below forks 70,000. Between 7-Rivers to Old Kaguyak. Est. 100,000 pinks.
Walter's Creek												
258-702	7-30	Prokopowich	e	e	e	0	0	0	0	20000P	-	Fish scattered along beach off mouth.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Tundra Lakes Creek												
258-703	7-25	Brennan	f	f	f	0	0	0	0	-	1900P	Balls of fish showing along beach.
Melavedof Creek												
258-705	7-30	Prokopowich	g	g	g	0	0	0	0	-	45000P	Fish scattered from Old Kaguyak to Seven Rivers.
258-705	8- 9	Prokopowich	g	g	g	0	0	0	0	-	24000P	Poor visibility towards 7-Rivers. SE 15-20.
Kevin Creek												
258-903	7-30	Prokopowich	g	g	g	0	0	0	0	-	1500P	Additional 2,000 p. out towards Cape Trinity.
Monashka Creek												
259-101	7-30	Prokopowich	g	g	g	0	0	0	0	3000P	-	Looks good for this time.
259-101	8- 4	Prokopowich	g	g	g	0	0	600	0	16000P	-	Looks very good, approximately 1,000 P. in scattered schools between Pillar and Monashka.
259-101	8-15	Prokopowich	g	g	g	0	0	2000	0	15000P	-	Channel change in creek above road bridge - low flow in main spawning area. 2 seiners outside markers.
Pillar Creek												
259-102	8- 4	Prokopowich	g	g	g	0	0	600	0	17000P	-	Very good show off mouth.
259-102	8-15	Prokopowich	g	g	g	0	0	1000	0	4000P	-	-
Buskin River												
259-211	7-25	Prokopowich	g	g	g	0	0	6000	0	-	-	Fish below weir.
259-211	8- 4	Prokopowich	g	g	g	0	0	10000	0	2000P	-	Pinks in creek below weir.
259-211	8-23	Prokopowich	g	g	g	0	0	215000	0	100Co	-	A few coho. Estimated 69,000 fish below weir. Excellent escapement, well distributed.
Sargent's Creek												
259-221	8-23	Prokopowich	g	g	g	0	0	19000	0	8000P	900Co 5000P	-
Russian River												
259-222	8-23	Prokopowich	g	g	g	0	0	12000	8000	12000P	-	Silt entering river from Brechan gravel pit.
Solonie Creek												
259-223	8-23	Prokopowich	g	g	g	0	0	15000	500	10000P	-	Boat fishing outside markers 12:30 P.M.
American River												
259-231	7-25	Prokopowich	g	g	g	0	0	500	200	3000Ch	-	One beach seiner.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Salt Creek												
259-233	8-23	Prokopowich	g	g	g	0	0	80500	8000	-	-	-
Peat Beach Creek												
259-235	8-23	Prokopowich	g	g	g	0	0	500	0	-	-	-
Sid Olds												
259-242	7-25	Brennan	e	e	e	0	0	7500	0	5000P	-	Fish spread out on flats at mouth. *7,500 total fish, # dollies??? Fish in lower 1/2 of river; nothing showing above house.
259-242	8-23	Prokopowich	g	g	g	0	900	90000	15000	500Co	-	Good distribution of fish in creek.
Myrtle Creek												
259-245	7-25	Brennan	e	e	e	0	0	0	0	2000P	200P	-
259-245	8-23	Prokopowich	g	g	g	0	0	5600	0	-	-	-
Roslyn Creek												
259-251	8-23	Prokopowich	g	g	g	0	250	42000	1	100Co	-	Fish are making it past beaver dams.
Twin Creek												
259-252	8-23	Prokopowich	g	g	g	0	0	9000	0	-	-	-
Capelin Creek												
259-253	8-23	Prokopowich	g	g	g	0	0	20000	0	-	-	Looks real good.
Chiniak Lagoon												
259-255	8-23	Prokopowich	g	g	g	0	20	0	0	-	-	-
Barabara Creek												
259-363	6-24	Prokopowich	f	f	f	400	0	0	0	-	-	Reds in lake - too windy for good survey.
259-363	8- 4	Prokopowich	g	g	g	3500	0	0	0	-	-	Reds are in lake.
Kizhuyak River												
259-365	7-14	Malloy	g	g	g	0	0	0	50	-	2000P 5100Ch	Water flow good.
259-365	7-25	Prokopowich	e	e	e	0	0	0	0	1500P 19000Ch	15000P 50000Ch	Looks excellent for this time. Most fish by K.E.A. ramp.
259-365	7-26	Malloy				0	0	0	200	4000Ch	21000Ch	Chum build-up very good for this date. Water flow very good.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Kizhuyak River												
259-365	8- 4	Prokopowich	g	g	g	0	0	12900	24800	-	-	Watchout - 700 chum. Above forks - 3,000 chum. W.F. 13,000 mixed pinks andchum - 60% chums. Chum creek - 2,000 chums. Beaver pond 500 P., 500 chums.
259-365	9- 7	Prokopowich	g	g	g	0	0	0	0	-	-	Partial survey - 38,000 fish total. Mixed pinks and chums.
259-365	9- 8	Prokopowich	e	e	e	0	115	26010	27500	-	-	Watchout Creek - 6,400 chum, 2,000 P, 15 coho. Beaver Pond 3,600 P, 3,600 chum. Chum Creek 5,200 chum, 500 P. Sloughs 4,300 pinks, 2,500 chum. EastFork 5,500 pinks, 5,600 chum. West Fork 9,600 P., 3,000 chums. Watchout Power house 510 P. 1,200 chums, 100 coho.
Pestchanie Creek												
259-366	7-25	Prokopowich	g	g	g	0	0	0	0	5000P 7000Ch	-	Four seiners working out from markers.
Sheratin River												
259-371	7-25	Prokopowich	g	g	g	0	0	1000	4000	-	40000P 25000Ch	Looks good in bay for this time.
259-371	8- 4	Prokopowich	g	g	g	0	0	10000	15000	-	-	-
Sacramento River												
259-401	8-23	Prokopowich	g	g	g	0	400	4800	0	-	-	Upper portion - changed course. Some spawning area lost.
Valley Creek												
259-403	8-23	Prokopowich	g	g	g	0	50	0	0	-	-	-
Burton Creek												
259-404	8-23	Prokopowich	g	g	g	0	0	500	0	-	-	-
Trail Creek												
259-410	8-23	Prokopowich	g	g	g	0	0	800	50	-	-	Looks poor.
Pasagshak River												
259-411	8-23	Prokopowich	g	g	g	20000	2000	2000	0	-	-	Plus 125 kings.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Miam River												
259-412	7-25	Brennan	e	e	e	0	0	2500	1500	3500P 1500Ch	-	500 reds in lake. West fork pretty good for pinks - 500+ dogs mostly in lower river. Fish off mouth mixed in three schools.
259-412	8-30	Prokopowich	g	g	g	1200	0	8000	0	-	-	E. fork 2,000 P., Main fork 6,000 P., 250 coho in Main river.
Hurst Creek												
259-414	8-30	Prokopowich	g	g	g	0	0	5600	300	-	-	-
Saltery River												
259-415	6-24	Prokopowich	g	g	g	0	0	0	0	400R	-	Reds off mouth
259-415	6-27	Prokopowich	f			0	0	0	0	400R	-	Plankton, algae bloom. Blood red. Didn't survey river.
259-415	8-30	Prokopowich	g	g	g	0	1000	12500	0	-	-	All counts below weir.
Wild Creek												
259-417	8-30	Prokopowich	g	g	g	0	0	0	1700	-	-	Most are carcasses.
259-418A	8- 9	Prokopowich	g	g	g	0	0	0	1800	-	200Ch	Most are carcasses.
Kiliuda Pass Creek												
259-423	8- 9	Prokopowich	g	g	g	0	0	0	2000	-	-	-
Eagle Harbor												
259-424	7-25	Brennan	e	e	e	0	0	0	500	2000P 1000Ch	-	No pinks up west fork. Dogs on east side spread out.
Swikshak River												
262-151	7-15	Prokopowich	e	e	e	5500	0	0	0	-	-	Lagoon muddy.
Big River												
262-152	7-15	Prokopowich	p	p	p	0	0	0	0	-	-	Nothing seen. SW 25, water muddy.
Village Creek												
262-153	7-15	Prokopowich	p	p	p	0	0	0	0	-	-	Nothing seen - too windy.

-Continued-

Stream	Date MM-DD	Observer	Visibility Str	Mou	Bay	Fish in Stream: Reds	Coho	Pink	Chum	Build Up Fish: Mouth	Bay	Observer Remarks
Chiniak Lagoon												
262-154	7-15	Prokopowich	p	p	p	0	0	0	0	-	-	Nothing seen.
262-20	7-15	Prokopowich	p	p	p	0	0	0	0	-	-	Nothing seen. Poor visibility.
Kukak River												
262-271	9- 7	Prokopowich	f	f	f	0	0	8000	70000	25000Ch	-	No fish seen in bay.
Kukak Valley Creek												
262-272	9- 7	Prokopowich	f	f	f	0	0	0	5000	-	-	Main fork too muddy - fish in clear fork.
Kaflia Creek												
262-301	7-15	Prokopowich	e	e	e	32500	0	0	0	-	-	Lower lake - 31,000 reds, Upper lake - 1,500 reds. Nothing seen in salt water.
Sandy Creek												
262-401	9- 7	Prokopowich	g	g	g	0	0	4500	0	3000P	-	-
Missak Creek												
262-402	9- 7	Prokopowich	g	g	g	0	0	2500	0	10000P	-	Log jam at mouth.
Kinak Creek												
262-451	9- 7	Prokopowich	g	g	g	0	0	40000	8000	20000P	-	Most pinks were still in lagoon.
Geographic Creek												
262-501	9- 7	Prokopowich	g	g	g	0	0	6500	0	-	-	-
Dakavak												
262-551	7-15	Prokopowich	f	f	f	0	0	0	0	-	-	Nothing seen.
262-551	9- 7	Prokopowich	g	g	g	0	0	60000	5000	2000P	-	Looks good.
Alogogshak Creek												
262-602	7-15	Prokopowich	f	f	f	0	0	0	0	-	-	Only surveyed off mouth. One jumper seen.
262-602	9- 7	Prokopowich	g	g	g	0	0	0	96000	-	-	Fish well distributed.
Kashvik Creek												
262-604	7-15	Prokopowich	g	g	g	0	0	500	1800	500Ch	-	Poor visibility in bay.

[1] Aerial survey unless otherwise noted. Counts should include live fish only; carcasses seen should be noted in the comments section. Preliminary data as of 11/5/91.

Appendix E.2. Fish weirs in the Kodiak Management Area, 1988.

Fish weirs are man-made structures whose primary function is to yield accurate total enumeration of adult salmon during their upstream spawning migration from saltwater to freshwater. This escapement information provides the basis for in-season management actions which regulate all user-groups harvesting salmon (which are excess to management needs). Those salmon species benefiting from the use of these weirs are identified in Table 11 on page 40; these are the primary target species by the various user-groups. The remaining species tallied at these weirs are monitored for trends in abundance and includes not only salmon stocks untargeted by the various user-groups but also steelhead and Dolly Varden, both of which have downstream spring migrations from freshwater to saltwater. and mid to late summer migration from saltwater to freshwater.

Operation of these weirs generally begins in mid-May to early-June until late-August to late-September depending upon the nature of salmon populations in a particular system; the time frame for each weir in operation during the 1988 season is shown in Table 12 on page 41.

During the 1988 field season seventeen fish-weirs were installed in Kodiak and Afognak Island streams. These weirs are identified below:

1. **KARLUK WEIR** - Approximately 320' long, located about 1/8 mile upstream from confluence of Karluk River and Karluk Lagoon. First constructed in 1924; a two to four man camp. Operational from mid-May to late September.

2. **AYAKULIK WEIR** - Approximately 190' long, located about 1/8 mile upstream from confluence of Ayakulik River and Shelikof Strait. First constructed in 1929; a two to three man camp. Operational from late-May to early-September.

3. **UPPER STATION WEIR** - Approximately 80' long, located 60 yards below the outlet of lower Upper Station Lake. First constructed in 1929; a two to three man camp. Operational from late-May to mid-September.

4. **DOG SALMON WEIR** - Consists of two 100' weirs and one 25' weir on the three forks of Dog Salmon River which drains from the Fraser Lake system. First constructed in 1983; a one to two man camp. Operational from early-June to early-September.

-Continued-

5. **FRASER LAKE STATIONS** - Consists of a series of "fish ladders" which allow salmon to ascend a 30' falls. Constructed in 1962 to accommodate a sockeye salmon stock introduced in 1951; a one to two man camp. Operational from mid-May to mid-August.

6. **AKALURA WEIR** - Approximately 60' long, located about 1/8 mile upstream from confluence of Akalura Creek and Akalura Lagoon. First constructed in 1923; a one to two man camp. Operational from late-May to late-September.

7. **SILVER SALMON** - Approximately 20' long, located about 50 yards above the head of Silver Salmon Lagoon in Olga Bay. First constructed in 1988; a one man camp. Operational from late-August to late-September (manned by U.S.F.W.S.).

8. **SALTERY WEIR** - Approximately 120' long, located about 1/4 mile below the outlet of Saltery Lake. First constructed in 1985; a one man camp. Operational from early-June to mid-September.

9. **BUSKIN WEIR** - Approximately 100' long, located about 1 mile above confluence of Buskin River and Chiniak Bay. First constructed in 1985; a two man camp. Operational from late-April to early-October.

10. **LITNIK WEIR** - Approximately 120' long, located about 30 yards above the confluence of Litnik River and Litnik Lagoon. First constructed in 1982; a two man camp. Operational from late-May to mid-September.

11. **THORSHEIM WEIR** - Approximately 30' long, located about 80 yards above the confluence of Thorsheim Creek and Thorsheim Lagoon. First constructed in 1986; a one man camp. Operational from early-June to early-July.

12. **PAUL'S WEIR** - Approximately 20' long, located at the confluence of Paul's Creek and Perenosa Bay. First constructed in 1984; a one man camp. Operational from early-June to mid-September.

13. **DISCOVERER WEIR** - Approximately 60' long, located below the fish pass on Portage Creek in Discoverer Bay. First constructed in 1987; a one man camp (same man oversees Paul's Bay weir). Operational primarily from early-August to mid-September.

-Continued-

14. **WHITEY'S HOLE WEIR** - Approximately 10' long, located on the west side of Shangin Bay on Shuyak Island. First constructed in 1986; a one man camp (same man oversees Paul's Bay weir). Operational from early-August to mid-September.

12. **CARRY-BEAR WEIR** - Approximately 10' long, located near the head of Carry Inlet on Shuyak Island. First constructed in 1986; a one man operation (same man oversees other Shuyak Island weirs). Operational from early-August top mid-September.

14. **BIG BAY WEIR** - Approximately 20' long, located at the head of Big Bay on Shuyak Island. First constructed in 1986; a one man camp. Operational; from early-August to mid-September (monitored by Park Service under ADF&G supervision.

Appendix E.3. Cumulative salmon escapement into weired streams, Kodiak Area, 1980-1988.

System	Species	Cumulative Totals 1988	1987	1986	1985	1984	1983	1982	1981	1980
Karluk	Total Reds	578,816	766,251	886,397	995,948	420,268	436,145	164,407	222,706	146,623
	Late Run Reds	294,957	429,319	527,751	683,864	139,601	223,859	44,363	124,990	18,188
	King	13,337	7,930	4,429	5,362	7,747	11,746	7,489	7,575	4,810
	Pink	711,676	24,222	668,297	41,232	1,672,408	38,902	2,326,674	51,248	2,359,160
	Coho	12,083	42,634	22,624	37,871	12,365	34,778	14,901	24,792	5,739
	Chum	108	449	111	192	143	67	104	286	262
	Steelhead Down	210	687	296	1,924	2,512	4,203	1,096	2,194	902
	Steelhead Up	9	19	402	684	115	173	26	163	48
Ayakulik	Total Reds	291,774	261,913	318,135	388,759	283,215	171,415	169,678	279,200	774,328
	Late Run Reds	100,388	81,398	79,578	88,191	50,749	77,875	43,826	153,928	293,163
	King	21,370	15,636	6,371	8,151	6,502	15,511	3,230	8,018	974
	Pink	397,409	7,819	560,210	3,788	631,060	17,702	721,462	6,358	857,627
	Coho	19,476	16,342	12,215	29,085	11,951	16,665	5,011	2,392	511
	Chum	184	437	90	14	34	22	71	214	46
	Steelhead Down	0	0	1,016	693	1,306	1,351	54	1,108	
	Steelhead Up	250	190	82	387	135	181	4	0	7
Dog Salmon	Reds	241,970	48,956	136,553	506,336	48,844	166,655			
	King	303	103	221	340	137	169			
	Pink	59,489	55,993	149,194	141,869	55,964	54,943			
	Coho	3,543	6,223	5,394	4,000	1,340	5,033			
	Chum	30,680	29,041	9,134	11,768	18,121	18,124			
	Steelhead Down	0	0	270	239	80	275			
	Steelhead Up	13	0	23	30	2	39			
Fraser Lake	Reds	246,704	40,544	126,529	485,835	53,524	158,340	437,772	377,716	405,535
	King	212	94	127	165	85	86	47	22	66
	Pink	0	285	0	641	1	1,414	0	11,124	6
	Chum	6	5	9	25	79	63	56	85	28
Upper Stn	Total Reds	306,560	232,195	466,385	435,817	319,226	289,250	470,732	181,578	110,019
	Late Run Reds	249,844	158,561	366,490	413,456	251,651	183,269	306,282	124,136	87,435
	King	1	1	1	1	1	0	2	4	3
	Pink	894	1,010	3,675	935	10,499	424	9,277	1,556	1,755
	Coho	3,813	2,560	2,469	4,314	3,240	4,521	4,839	8,233	2,200
	Chum	3	2	0	0	1				
Litnik	Reds	39,012	26,474	48,333	53,872	94,463	40,049	123,055	57,267	93,806
	King	2	0	0	0	0	3	3	2	1
	Pink	148,206	8,780	0	2,215	30,463	5,239	3,841	4,135	11,508
	Coho	9,772	11,469	5,082	13,847	7,732	112	428	4,271	434
	Chum	11	16	6	2	0	0	4	3	4
	Steelhead Down	0	126	134	60	27	0	106		
	Steelhead Up	28	64	0	136	41	1			
Pauls Bay	Reds	22,794	13,122	5,402	14,941	32,659	20,625	18,574	21,806	48,142
	Pink	434	202	1,687	26,904	6,180				
	Coho	5,563	4,767	9,403	9,535	4,274				
	Chum	3	0	0	1	6				
Thorsheim	Reds	4,217	3,888	6,383						
	Pink	0								
	Coho	0	0	281						
	Chum	0								

-Continued-

Appendix E.3. (page 2 of 2)

System	Species	Cumulative Totals 1988	1987	1986	1985	1984	1983	1982	1981	1980
Saltery	Reds	25,654	22,704	38,314	1,890					
	King	12	6	3	1					
	Pink	7,646	39,687	23,011	7,107					
	Coho	4,702	11,226	11,009	4,022					
	Chum	28	119	203	43					
	Steelhead Down	0	0	1	0					
	Steelhead Up	29	101	56	21					
Buskin	Reds	12,144	12,690	8,937	18,010					
	King	1								
	Pink	203,648	27,892	98,949	153,026					
	Coho	6,782	11,078	7,488	8,275					
	Chum	84	79	50	7					
	Steelhead Down	357	105	71	223					
	Steelhead Up	26	29	47	5					
Akalura	Reds	38,618	6,116	9,800						
	King	1								
	Pink	28,010	22,791							
	Coho	6,115	1,480	2,100						
	Chum	0	5							
	Steelhead Down	33	31							
Perenosa	Reds	26	7							
	Pink	56,475	12,094							
	Coho	2,354	3,710							
	Chum	0	14							
	Steelhead Up	0								

[1] Weirs were first installed on Dog Salmon in 1983, Pauls Bay in 1984, Buskin River and Saltery Creek in 1985, and Thorsheim Creek in 1986. Earlier counts at Pauls Bay are fish pass counts.

Appendix E.4. Karluk system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	SOCKEYE Daily	SOCKEYE Accum	KINGS Daily	KINGS Accum	COHOS Daily	COHOS Accum	PINKS Daily	PINKS Accum	CHUMS Daily	CHUMS Accum
May 25	0	0	0	0	0	0	0	0	0	0
26	53	53	5	5	0	0	0	0	0	0
27	397	450	21	26	0	0	0	0	0	0
28	41	491	1	27	0	0	0	0	0	0
29	117	608	14	41	0	0	0	0	0	0
30	135	743	48	89	0	0	0	0	0	0
31	8	751	16	105	0	0	0	0	0	0
Jun 1	5	756	52	157	0	0	0	0	0	0
2	47	803	119	276	0	0	0	0	0	0
3	304	1,107	43	319	0	0	0	0	0	0
4	544	1,651	90	409	0	0	0	0	0	0
5	12,654	14,305	112	521	0	0	0	0	0	0
6	30,000	44,305	120	641	0	0	0	0	0	0
7	23,000	67,305	120	761	0	0	0	0	0	0
8	7,561	74,866	57	818	0	0	0	0	0	0
9	4,061	78,927	289	1,107	0	0	0	0	0	0
10	4,751	83,678	548	1,655	0	0	0	0	0	0
11	2,512	86,190	484	2,139	0	0	0	0	0	0
12	3,416	89,606	230	2,369	0	0	0	0	0	0
13	16,191	105,797	737	3,106	0	0	0	0	0	0
14	13,555	119,352	502	3,608	0	0	0	0	0	0
15	2,702	122,054	533	4,141	0	0	0	0	0	0
16	8,125	130,179	1,017	5,158	0	0	0	0	0	0
17	11,758	141,937	505	5,663	0	0	0	0	0	0
18	10,422	152,359	614	6,277	0	0	0	0	0	0
19	10,234	162,593	592	6,869	0	0	0	0	0	0
20	18,424	181,017	565	7,434	0	0	0	0	0	0
21	12,521	193,538	309	7,743	0	0	0	0	0	0
22	10,458	203,996	467	8,210	0	0	0	0	2	2
23	12,243	216,239	644	8,854	0	0	0	0	1	3
24	7,188	223,427	463	9,317	0	0	0	0	0	3
25	11,682	235,109	903	10,220	0	0	0	0	0	3
26	5,152	240,261	373	10,593	0	0	0	0	0	3
27	4,528	244,789	564	11,157	0	0	0	0	1	4
28	2,476	247,265	354	11,511	0	0	0	0	0	4
29	2,517	249,782	207	11,718	0	0	0	0	0	4
30	3,923	253,705	190	11,908	0	0	0	0	0	4
Jul 1	2,756	256,461	155	12,063	0	0	0	0	2	6
2	5,714	262,175	156	12,219	0	0	3	3	0	6
3	1,691	263,866	65	12,284	0	0	0	3	0	6
4	1,160	265,026	37	12,321	0	0	0	3	0	6
5	2,057	267,083	145	12,466	0	0	1	4	0	6
6	3,993	271,076	124	12,590	0	0	3	7	0	6
7	2,909	273,985	78	12,668	0	0	7	14	0	6
8	1,133	275,118	18	12,686	0	0	10	24	0	6
9	731	275,849	76	12,762	0	0	32	56	0	6
10	1,174	277,023	79	12,841	0	0	7	63	0	6
11	742	277,765	32	12,873	0	0	10	73	0	6
12	560	278,325	2	12,875	0	0	7	80	1	7
13	2,328	280,653	58	12,933	0	0	61	141	0	7
14	1,790	282,443	36	12,969	0	0	153	294	0	7
15	1,416	283,859	35	13,004	0	0	174	468	0	7
16	3,311	287,170	36	13,040	0	0	209	677	0	7
17	1,131	288,301	21	13,061	0	0	130	807	0	7
18	1,858	290,159	17	13,078	0	0	222	1,029	1	8
19	3,035	293,194	26	13,104	0	0	362	1,391	1	9
20	2,423	295,617	19	13,123	0	0	116	1,507	0	9
21	893	296,510	12	13,135	0	0	28	1,535	1	10
22	992	297,502	19	13,154	0	0	40	1,575	3	13
23	1,416	298,918	6	13,160	1	1	50	1,625	0	13

-Continued-

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
24	906	299,824	7	13,167	1	2	215	1,840	1	14
25	1,344	301,168	8	13,175	1	3	491	2,331	1	15
26	1,792	302,960	10	13,185	0	3	348	2,679	3	18
27	139	303,099	8	13,193	0	3	23	2,702	0	18
28	87	303,186	4	13,197	0	3	20	2,722	2	20
29	513	303,699	22	13,219	0	3	177	2,899	2	22
30	124	303,823	4	13,223	1	4	41	2,940	0	22
31	786	304,609	5	13,228	0	4	245	3,185	2	24
Aug 1	3,524	308,133	13	13,241	1	5	640	3,825	3	27
2	242	308,375	6	13,247	0	5	191	4,016	2	29
3	15,563	323,938	19	13,266	1	6	5,074	9,090	4	33
4	9,163	333,101	1	13,267	0	6	2,416	11,506	4	37
5	12,056	345,157	5	13,272	0	6	4,794	16,300	5	42
6	3,486	348,643	1	13,273	0	6	2,248	18,548	1	43
7	4,299	352,942	1	13,274	0	6	12,529	31,077	4	47
8	2,355	355,297	5	13,279	0	6	18,093	49,170	1	48
9	3,373	358,670	8	13,287	0	6	5,685	54,855	1	49
10	9,015	367,685	6	13,293	2	8	17,385	72,240	0	49
11	5,512	373,197	6	13,299	0	8	33,667	105,907	0	49
12	7,188	380,385	4	13,303	5	13	80,228	186,135	1	50
13	3,589	383,974	1	13,304	4	17	27,123	213,258	2	52
14	2,433	386,407	4	13,308	4	21	12,561	225,819	1	53
15	6,071	392,478	3	13,311	3	24	29,902	255,721	6	59
16	5,779	398,257	1	13,312	5	29	40,437	296,158	5	64
17	5,467	403,724	4	13,316	13	42	54,071	350,229	2	66
18	3,826	407,550	1	13,317	7	49	36,802	387,031	2	68
19	4,104	411,654	3	13,320	5	54	26,254	413,285	6	74
20	2,965	414,619	4	13,324	2	56	26,293	439,578	2	76
21	3,153	417,772	4	13,328	15	71	28,858	468,436	4	80
22	1,766	419,538	1	13,329	4	75	13,505	481,941	3	83
23	16,285	435,823	1	13,330	13	88	27,533	509,474	2	85
24	3,519	439,342	1	13,331	5	93	4,355	513,829	2	87
25	5,573	444,915	1	13,332	15	108	24,626	538,455	2	89
26	5,978	450,893	0	13,332	17	125	36,975	575,430	1	90
27	547	451,440	0	13,332	8	133	7,581	583,011	1	91
28	589	452,029	0	13,332	20	153	37,770	620,781	3	94
29	326	452,355	2	13,334	29	182	32,222	653,003	3	97
30	236	452,591	2	13,336	65	247	8,387	661,390	1	98
31	181	452,772	1	13,337	31	278	6,292	667,682	4	102
Sep 1	293	453,065	0	13,337	22	300	5,640	673,322	0	102
2	232	453,297	0	13,337	11	311	3,568	676,890	0	102
3	328	453,625	0	13,337	17	328	4,952	681,842	1	103
4	2,404	456,029	0	13,337	62	390	4,522	686,364	1	104
5	37,692	493,721	0	13,337	110	500	6,796	693,160	1	105
6	33,058	526,779	0	13,337	122	622	5,670	698,830	1	106
7	22,581	549,360	0	13,337	127	749	5,196	704,026	2	108
8	14,040	563,400	0	13,337	216	965	3,498	707,524	0	108
9	177	563,577	0	13,337	8	973	113	707,637	0	108
10	2,500	566,077	0	13,337	167	1,140	667	708,304	0	108
11	2,500	568,577	0	13,337	166	1,306	666	708,970	0	108
12	2,500	571,077	0	13,337	167	1,473	667	709,637	0	108
13	2,500	573,577	0	13,337	166	1,639	666	710,303	0	108
14	2,500	576,077	0	13,337	167	1,806	667	710,970	0	108
15	2,500	578,577	0	13,337	167	1,973	667	711,637	0	108
16	239	578,816	0	13,337	110	2,083	39	711,676	0	108
17	0	578,816	0	13,337	10,000	12,083	0	711,676	0	108

Appendix E.5. Ayakulik system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date		----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
	26	0	0	269	284	0	0	0	0	0	0
	27	85	85	117	401	0	0	0	0	0	0
	28	694	779	159	560	0	0	0	0	0	0
	29	873	1,652	154	714	0	0	0	0	0	0
	30	1,658	3,310	178	892	0	0	0	0	0	0
	31	2,988	6,298	129	1,021	0	0	0	0	0	0
Jun	1	1,673	7,971	85	1,106	0	0	0	0	0	0
	2	534	8,505	70	1,176	0	0	0	0	0	0
	3	2,230	10,735	224	1,400	0	0	0	0	0	0
	4	10,697	21,432	234	1,634	0	0	0	0	0	0
	5	4,831	26,263	238	1,872	0	0	0	0	0	0
	6	4,866	31,129	214	2,086	0	0	0	0	0	0
	7	1,415	32,544	192	2,278	0	0	0	0	0	0
	8	6,161	38,705	148	2,426	0	0	0	0	0	0
	9	748	39,453	164	2,590	0	0	0	0	0	0
	10	3,062	42,515	267	2,857	0	0	0	0	0	0
	11	764	43,279	1,118	3,975	0	0	0	0	0	0
	12	2,049	45,328	1,070	5,045	0	0	0	0	0	0
	13	4,781	50,109	2,072	7,117	0	0	0	0	0	0
	14	2,438	52,547	469	7,586	0	0	0	0	0	0
	15	385	52,932	311	7,897	0	0	0	0	0	0
	16	350	53,282	1,082	8,979	0	0	0	0	0	0
	17	773	54,055	1,041	10,020	0	0	0	0	0	0
	18	149	54,204	248	10,268	0	0	0	0	0	0
	19	6,792	60,996	1,995	12,263	0	0	0	0	0	0
	20	227	61,223	77	12,340	0	0	0	0	0	0
	21	12,858	74,081	1,113	13,453	0	0	0	0	0	0
	22	11,221	85,302	839	14,292	0	0	0	0	0	0
	23	1,941	87,243	384	14,676	0	0	0	0	0	0
	24	4,942	92,185	600	15,276	0	0	0	0	1	1
	25	3,150	95,335	691	15,967	0	0	0	0	0	1
	26	856	96,191	356	16,323	0	0	1	1	0	1
	27	7,321	103,512	838	17,161	0	0	0	1	0	1
	28	5,348	108,860	479	17,640	0	0	0	1	0	1
	29	3,530	112,390	398	18,038	0	0	0	1	0	1
	30	3,940	116,330	484	18,522	0	0	0	1	2	3
Jul	1	4,966	121,296	364	18,886	0	0	3	4	1	4
	2	5,929	127,225	326	19,212	0	0	1	5	0	4
	3	109	127,334	65	19,277	0	0	1	6	0	4
	4	179	127,513	93	19,370	0	0	1	7	0	4
	5	201	127,714	28	19,398	0	0	5	12	0	4
	6	3,426	131,140	266	19,664	0	0	15	27	0	4
	7	9,522	140,662	219	19,883	0	0	54	81	0	4
	8	12,256	152,918	328	20,211	0	0	59	140	0	4
	9	8,167	161,085	199	20,410	0	0	51	191	1	5
	10	75	161,160	6	20,416	0	0	3	194	0	5
	11	362	161,522	33	20,449	0	0	4	198	0	5
	12	319	161,841	44	20,493	0	0	26	224	0	5
	13	1,987	163,828	69	20,562	0	0	21	245	0	5
	14	18,466	182,294	274	20,836	0	0	137	382	2	7
	15	9,092	191,386	45	20,881	0	0	85	467	1	8
	16	4,470	195,856	67	20,948	0	0	86	553	0	8
	17	271	196,127	1	20,949	0	0	7	560	0	8
	18	318	196,445	14	20,963	0	0	19	579	0	8
	19	85	196,530	2	20,965	0	0	38	617	1	9
	20	4,735	201,265	68	21,033	0	0	351	968	4	13
	21	11,949	213,214	25	21,058	0	0	139	1,107	4	17
	22	972	214,186	7	21,065	0	0	94	1,201	2	19
	23	5,800	219,986	20	21,085	0	0	536	1,737	6	25
	24	155	220,141	8	21,093	0	0	151	1,888	1	26

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Appendix E.5. (page 2 of 2)

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
25	11,152	231,293	20	21,113	0	0	4,513	6,401	2	28
26	6,414	237,707	10	21,123	0	0	1,284	7,685	3	31
27	451	238,158	12	21,135	0	0	330	8,015	1	32
28	933	239,091	38	21,173	0	0	730	8,745	1	33
29	928	240,019	11	21,184	0	0	1,918	10,663	1	34
30	2,533	242,552	20	21,204	0	0	6,722	17,385	2	36
31	1,917	244,469	2	21,206	0	0	4,408	21,793	0	36
Aug 1	3,070	247,539	4	21,210	0	0	3,305	25,098	1	37
2	1,385	248,924	2	21,212	1	1	478	25,576	2	39
3	5,184	254,108	13	21,225	3	4	17,547	43,123	22	61
4	2,105	256,213	11	21,236	1	5	13,601	56,724	12	73
5	1,570	257,783	14	21,250	0	5	5,525	62,249	9	82
6	10,728	268,511	22	21,272	16	21	57,009	119,258	24	106
7	1,502	270,013	17	21,289	6	27	19,634	138,892	1	107
8	924	270,937	2	21,291	0	27	8,034	146,926	0	107
9	1,152	272,089	10	21,301	53	80	25,981	172,907	3	110
10	785	272,874	10	21,311	42	122	13,873	186,780	2	112
11	1,357	274,231	19	21,330	106	228	32,928	219,708	13	125
12	2,525	276,756	4	21,334	86	314	23,270	242,978	12	137
13	1,619	278,375	2	21,336	99	413	20,280	263,258	3	140
14	3,067	281,442	4	21,340	304	717	33,461	296,719	4	144
15	2,292	283,734	4	21,344	219	936	24,706	321,425	5	149
16	405	284,139	3	21,347	197	1,133	4,090	325,515	0	149
17	567	284,706	9	21,356	299	1,432	5,996	331,511	6	155
18	665	285,371	4	21,360	761	2,193	7,310	338,821	4	159
19	385	285,756	4	21,364	417	2,610	5,377	344,198	5	164
20	557	286,313	3	21,367	550	3,160	5,191	349,389	5	169
21	406	286,719	1	21,368	445	3,605	3,290	352,679	1	170
22	292	287,011	1	21,369	223	3,828	1,904	354,583	1	171
23	930	287,941	0	21,369	452	4,280	5,064	359,647	3	174
24	631	288,572	0	21,369	808	5,088	2,406	362,053	2	176
25	677	289,249	1	21,370	3,005	8,093	8,560	370,613	2	178
26	199	289,448	0	21,370	858	8,951	7,566	378,179	2	180
27	225	289,673	0	21,370	1,039	9,990	3,949	382,128	1	181
28	596	290,269	0	21,370	1,932	11,922	4,088	386,216	2	183
29	404	290,673	0	21,370	1,596	13,518	4,572	390,788	0	183
30	416	291,089	0	21,370	1,518	15,036	2,980	393,768	1	184
31	337	291,426	0	21,370	1,256	16,292	1,287	395,055	0	184
Sep 1	152	291,578	0	21,370	1,080	17,372	870	395,925	0	184
2	96	291,674	0	21,370	1,104	18,476	984	396,909	0	184
3	100	291,774	0	21,370	1,000	19,476	500	397,409	0	184

Appendix E.6. Dog Salmon system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date		----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
Jun	2	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	0
	5	0	0	0	0	0	0	0	0	0	0
	6	0	0	0	0	0	0	0	0	0	0
	7	0	0	0	0	0	0	0	0	0	0
	8	0	0	0	0	0	0	0	0	0	0
	9	0	0	0	0	0	0	0	0	0	0
	10	0	0	0	0	0	0	0	0	0	0
	11	0	0	0	0	0	0	0	0	0	0
	12	0	0	0	0	0	0	0	0	0	0
	13	0	0	0	0	0	0	0	0	0	0
	14	0	0	0	0	0	0	0	0	0	0
	15	0	0	0	0	0	0	0	0	0	0
	16	0	0	0	0	0	0	0	0	0	0
	17	0	0	1	1	0	0	0	0	1	1
	18	9	9	4	5	0	0	0	0	0	1
	19	0	9	2	7	0	0	0	0	0	1
	20	7	16	0	7	0	0	0	0	0	1
	21	7	23	1	8	0	0	0	0	0	1
	22	0	23	0	8	0	0	0	0	0	1
	23	9,345	9,368	52	60	0	0	0	0	100	101
	24	28,916	38,284	47	107	0	0	0	0	103	204
	25	25,062	63,346	37	144	0	0	0	0	146	350
	26	9,867	73,213	15	159	0	0	0	0	60	410
	27	13,132	86,345	9	168	0	0	0	0	77	487
	28	23,715	110,060	23	191	0	0	0	0	142	629
	29	14,121	124,181	10	201	0	0	0	0	137	766
	30	8,098	132,279	3	204	0	0	0	0	422	1,188
Jul	1	15,669	147,948	17	221	0	0	0	0	1,290	2,478
	2	6,130	154,078	4	225	0	0	0	0	606	3,084
	3	8,636	162,714	11	236	0	0	0	0	1,142	4,226
	4	3,681	166,395	12	248	0	0	0	0	601	4,827
	5	70	166,465	3	251	0	0	0	0	40	4,867
	6	139	166,604	2	253	0	0	0	0	64	4,931
	7	12,595	179,199	23	276	0	0	0	0	1,283	6,214
	8	4,883	184,082	2	278	0	0	0	0	587	6,801
	9	16,177	200,259	3	281	0	0	0	0	2,155	8,956
	10	15,935	216,194	7	288	0	0	0	0	1,271	10,227
	11	4,183	220,377	0	288	0	0	0	0	928	11,155
	12	275	220,652	0	288	0	0	0	0	510	11,665
	13	352	221,004	0	288	0	0	0	0	420	12,085
	14	2,003	223,007	0	288	0	0	0	0	1,213	13,298
	15	138	223,145	0	288	0	0	0	0	153	13,451
	16	797	223,942	1	289	0	0	0	0	1,348	14,799
	17	23	223,965	0	289	0	0	0	0	47	14,846
	18	145	224,110	0	289	0	0	0	0	115	14,961
	19	4,363	228,473	1	290	0	0	0	0	1,311	16,272
	20	32	228,505	1	291	0	0	0	0	123	16,395
	21	44	228,549	0	291	0	0	0	0	282	16,677
	22	424	228,973	1	292	0	0	0	0	830	17,507
	23	452	229,425	0	292	0	0	0	0	551	18,058
	24	138	229,563	0	292	0	0	0	0	85	18,143
	25	98	229,661	0	292	0	0	0	0	29	18,172
	26	2,429	232,090	1	293	0	0	0	0	542	18,714
	27	391	232,481	0	293	0	0	3	3	268	18,982
	28	2,912	235,393	0	293	1	1	3	6	146	19,128
	29	552	235,945	0	293	0	1	0	6	90	19,218
	30	275	236,220	1	294	0	1	1	7	54	19,272
	31	166	236,386	1	295	0	1	0	7	42	19,314

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Appendix E.6. (page 2 of 2)

Date		----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
Aug	1	0	236,386	0	295	0	1	0	7	14	19,328
	2	0	236,386	0	295	0	1	0	7	5	19,333
	3	487	236,873	0	295	0	1	0	7	103	19,436
	4	18	236,891	0	295	0	1	0	7	11	19,447
	5	87	236,978	0	295	0	1	3	10	8	19,455
	6	49	237,027	0	295	0	1	5	15	0	19,455
	7	1,854	238,881	2	297	0	1	8	23	61	19,516
	8	21	238,902	0	297	0	1	0	23	0	19,516
	9	417	239,319	0	297	0	1	21	44	1	19,517
	10	67	239,386	0	297	0	1	17	61	0	19,517
	11	365	239,751	1	298	3	4	1,175	1,236	7	19,524
	12	302	240,053	2	300	9	13	4,426	5,662	8	19,532
	13	79	240,132	0	300	5	18	1,523	7,185	3	19,535
	14	27	240,159	1	301	3	21	1,852	9,037	3	19,538
	15	93	240,252	0	301	1	22	902	9,939	0	19,538
	16	8	240,260	0	301	0	22	44	9,983	0	19,538
	17	11	240,271	0	301	2	24	63	10,046	1	19,539
	18	2	240,273	0	301	0	24	72	10,118	1	19,540
	19	53	240,326	0	301	9	33	1,627	11,745	3	19,543
	20	22	240,348	0	301	4	37	323	12,068	0	19,543
	21	132	240,480	0	301	61	98	1,353	13,421	0	19,543
	22	168	240,648	0	301	26	124	2,167	15,588	3	19,546
	23	74	240,722	0	301	50	174	769	16,357	2	19,548
	24	22	240,744	0	301	3	177	204	16,561	1	19,549
	25	206	240,950	0	301	531	708	6,535	23,096	13	19,562
	26	281	241,231	1	302	137	845	1,814	24,910	15	19,577
	27	16	241,247	0	302	25	870	341	25,251	2	19,579
	28	126	241,373	0	302	274	1,144	1,728	26,979	35	19,614
	29	5	241,378	0	302	7	1,151	198	27,177	0	19,614
	30	107	241,485	0	302	41	1,192	2,297	29,474	85	19,699
	31	80	241,565	1	303	198	1,390	2,494	31,968	118	19,817
Sep	1	39	241,604	0	303	25	1,415	1,725	33,693	49	19,866
	2	34	241,638	0	303	357	1,772	3,098	36,791	48	19,914
	3	9	241,647	0	303	74	1,846	588	37,379	23	19,937
	4	7	241,654	0	303	23	1,869	323	37,702	18	19,955
	5	4	241,658	0	303	15	1,884	677	38,379	4	19,959
	6	2	241,660	0	303	37	1,921	814	39,193	15	19,974
	7	53	241,713	0	303	244	2,165	2,523	41,716	45	20,019
	8	7	241,720	0	303	70	2,235	1,099	42,815	29	20,048
	9	0	241,720	0	303	0	2,235	157	42,972	2	20,050
	10	0	241,720	0	303	8	2,243	517	43,489	5	20,055
	11	250	241,970	0	303	1,300	3,543	16,000	59,489	625	20,680
	12	0	241,970	0	303	0	3,543	0	59,489	10,000	30,680

Appendix E.7. Fraser Lake system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
Jun 20	8	8	0	0	0	0	0	0	0	0
21	11	19	1	1	0	0	0	0	0	0
22	4	23	0	1	0	0	0	0	0	0
23	1	24	0	1	0	0	0	0	0	0
24	8	32	0	1	0	0	0	0	0	0
25	1,110	1,142	3	4	0	0	0	0	0	0
26	2,427	3,569	3	7	0	0	0	0	0	0
27	5,397	8,966	1	8	0	0	0	0	0	0
28	4,589	13,555	7	15	0	0	0	0	0	0
29	4,211	17,766	1	16	0	0	0	0	0	0
30	10,771	28,537	12	28	0	0	0	0	0	0
Jul 1	13,209	41,746	4	32	0	0	0	0	0	0
2	15,805	57,551	0	32	0	0	0	0	0	0
3	10,096	67,647	7	39	0	0	0	0	0	0
4	13,719	81,366	2	41	0	0	0	0	0	0
5	9,148	90,514	4	45	0	0	0	0	1	1
6	3,631	94,145	5	50	0	0	0	0	0	1
7	5,557	99,702	13	63	0	0	0	0	0	1
8	23,161	122,863	42	105	0	0	0	0	0	1
9	19,334	142,197	15	120	0	0	0	0	0	1
10	10,722	152,919	3	123	0	0	0	0	0	1
11	30,599	183,518	28	151	0	0	0	0	0	1
12	5,229	188,747	11	162	0	0	0	0	2	3
13	6,155	194,902	4	166	0	0	0	0	0	3
14	2,385	197,287	9	175	0	0	0	0	0	3
15	11,101	208,388	1	176	0	0	0	0	0	3
16	2,104	210,492	4	180	0	0	0	0	0	3
17	5,473	215,965	6	186	0	0	0	0	1	4
18	1,567	217,532	0	186	0	0	0	0	0	4
19	3,248	220,780	1	187	0	0	0	0	0	4
20	2,438	223,218	4	191	0	0	0	0	0	4
21	7,283	230,501	2	193	0	0	0	0	1	5
22	1,073	231,574	2	195	0	0	0	0	0	5
23	1,814	233,388	2	197	0	0	0	0	0	5
24	881	234,269	2	199	0	0	0	0	0	5
25	1,024	235,293	7	206	0	0	0	0	0	5
26	945	236,238	1	207	0	0	0	0	0	5
27	675	236,913	0	207	0	0	0	0	0	5
28	1,902	238,815	0	207	0	0	0	0	1	6
29	2,269	241,084	2	209	0	0	0	0	0	6
30	1,464	242,548	0	209	0	0	0	0	0	6
31	435	242,983	0	209	0	0	0	0	0	6
Aug 1	141	243,124	0	209	0	0	0	0	0	6
2	235	243,359	0	209	0	0	0	0	0	6
3	51	243,410	0	209	0	0	0	0	0	6
4	275	243,685	0	209	0	0	0	0	0	6
5	231	243,916	0	209	0	0	0	0	0	6
6	86	244,002	0	209	0	0	0	0	0	6
7	134	244,136	0	209	0	0	0	0	0	6
8	532	244,668	1	210	0	0	0	0	0	6
9	547	245,215	0	210	0	0	0	0	0	6
10	329	245,544	1	211	0	0	0	0	0	6
11	276	245,820	1	212	0	0	0	0	0	6
12	310	246,130	0	212	0	0	0	0	0	6
13	227	246,357	0	212	0	0	0	0	0	6
14	211	246,568	0	212	0	0	0	0	0	6
15	107	246,675	0	212	0	0	0	0	0	6
16	29	246,704	0	212	0	0	0	0	0	6

Appendix E.8. Upper Station system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
May 22	1	1	0	0	0	0	0	0	0	0
23	5	6	0	0	0	0	0	0	0	0
24	55	61	0	0	0	0	0	0	0	0
25	0	61	0	0	0	0	0	0	0	0
26	44	105	0	0	0	0	0	0	0	0
27	33	138	0	0	0	0	0	0	0	0
28	2	140	0	0	0	0	0	0	0	0
29	10	150	0	0	0	0	0	0	0	0
30	77	227	0	0	0	0	0	0	0	0
31	101	328	0	0	0	0	0	0	0	0
Jun 1	33	361	0	0	0	0	0	0	0	0
2	70	431	0	0	0	0	0	0	0	0
3	26	457	0	0	0	0	0	0	0	0
4	147	604	0	0	0	0	0	0	0	0
5	1,459	2,063	0	0	0	0	0	0	0	0
6	620	2,683	0	0	0	0	0	0	0	0
7	2,940	5,623	0	0	0	0	0	0	0	0
8	5,535	11,158	0	0	0	0	0	0	0	0
9	1,020	12,178	0	0	0	0	0	0	0	0
10	2,605	14,783	0	0	0	0	0	0	0	0
11	94	14,877	0	0	0	0	0	0	0	0
12	1,069	15,946	0	0	0	0	0	0	0	0
13	2,700	18,646	0	0	0	0	0	0	0	0
14	5,603	24,249	0	0	0	0	0	0	0	0
15	1,637	25,886	0	0	0	0	0	0	0	0
16	762	26,648	0	0	0	0	0	0	0	0
17	491	27,139	0	0	0	0	0	0	0	0
18	1,297	28,436	0	0	0	0	0	0	0	0
19	1,752	30,188	0	0	0	0	0	0	0	0
20	2,297	32,485	0	0	0	0	0	0	0	0
21	210	32,695	0	0	0	0	0	0	0	0
22	2,117	34,812	0	0	0	0	0	0	0	0
23	1,714	36,526	0	0	0	0	0	0	0	0
24	5,247	41,773	0	0	0	0	0	0	0	0
25	4,243	46,016	0	0	0	0	0	0	0	0
26	3,577	49,593	0	0	0	0	0	0	0	0
27	181	49,774	0	0	0	0	0	0	0	0
28	390	50,164	0	0	0	0	0	0	0	0
29	288	50,452	0	0	0	0	0	0	0	0
30	468	50,920	0	0	0	0	0	0	0	0
Jul 1	383	51,303	0	0	0	0	0	0	0	0
2	122	51,425	0	0	0	0	0	0	0	0
3	516	51,941	0	0	0	0	0	0	0	0
4	273	52,214	0	0	0	0	0	0	0	0
5	505	52,719	0	0	0	0	0	0	0	0
6	1,479	54,198	0	0	0	0	0	0	0	0
7	601	54,799	0	0	0	0	0	0	0	0
8	222	55,021	0	0	0	0	0	0	0	0
9	531	55,552	0	0	0	0	0	0	0	0
10	186	55,738	0	0	0	0	0	0	0	0
11	135	55,873	0	0	0	0	0	0	0	0
12	245	56,118	0	0	0	0	0	0	0	0
13	97	56,215	0	0	0	0	0	0	0	0
14	428	56,643	0	0	0	0	0	0	0	0
15	73	56,716	0	0	0	0	0	0	0	0
16	8	56,724	0	0	0	0	0	0	0	0
17	68	56,792	0	0	0	0	0	0	0	0
18	315	57,107	0	0	0	0	0	0	0	0
19	317	57,424	0	0	0	0	0	0	1	1
20	316	57,740	0	0	0	0	0	0	0	1

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Appendix E.8. (page 2 of 2)

Date		----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
	21	1,173	58,913	0	0	0	0	0	0	0	1
	22	841	59,754	0	0	0	0	0	0	0	1
	23	190	59,944	0	0	0	0	0	0	0	1
	24	965	60,909	0	0	0	0	0	0	0	1
	25	132	61,041	0	0	0	0	0	0	0	1
	26	1,233	62,274	0	0	0	0	0	0	0	1
	27	271	62,545	0	0	0	0	0	0	0	1
	28	7,602	70,147	0	0	0	0	1	1	0	1
	29	11,158	81,305	0	0	0	0	1	2	0	1
	30	11,149	92,454	0	0	0	0	0	2	0	1
	31	8,121	100,575	1	1	0	0	0	2	0	1
Aug	1	10,030	110,605	0	1	0	0	0	2	0	1
	2	2,358	112,963	0	1	0	0	0	2	0	1
	3	6,245	119,208	0	1	0	0	1	3	0	1
	4	5,615	124,823	0	1	0	0	0	3	0	1
	5	5,673	130,496	0	1	0	0	0	3	0	1
	6	5,401	135,897	0	1	0	0	1	4	0	1
	7	3,122	139,019	0	1	1	1	1	5	0	1
	8	4,005	143,024	0	1	9	10	1	6	0	1
	9	7,099	150,123	0	1	5	15	5	11	0	1
	10	10,414	160,537	0	1	4	19	1	12	0	1
	11	16,390	176,927	0	1	2	21	3	15	0	1
	12	12,271	189,198	0	1	3	24	1	16	0	1
	13	11,409	200,607	0	1	1	25	2	18	0	1
	14	6,527	207,134	0	1	3	28	3	21	0	1
	15	3,274	210,408	0	1	1	29	0	21	0	1
	16	5,026	215,434	0	1	4	33	4	25	0	1
	17	3,502	218,936	0	1	5	38	6	31	0	1
	18	2,184	221,120	0	1	3	41	6	37	0	1
	19	1,370	222,490	0	1	3	44	3	40	0	1
	20	3,618	226,108	0	1	6	50	11	51	0	1
	21	4,104	230,212	0	1	32	82	6	57	0	1
	22	3,944	234,156	0	1	122	204	5	62	0	1
	23	6,624	240,780	0	1	279	483	20	82	0	1
	24	5,251	246,031	0	1	166	649	15	97	0	1
	25	6,385	252,416	0	1	203	852	83	180	0	1
	26	3,035	255,451	0	1	73	925	8	188	0	1
	27	3,109	258,560	0	1	131	1,056	10	198	0	1
	28	1,695	260,255	0	1	54	1,110	6	204	0	1
	29	8,266	268,521	0	1	424	1,534	23	227	0	1
	30	15,792	284,313	0	1	545	2,079	17	244	0	1
	31	5,137	289,450	0	1	148	2,227	9	253	0	1
Sep	1	3,857	293,307	0	1	73	2,300	7	260	0	1
	2	2,076	295,383	0	1	116	2,416	13	273	0	1
	3	748	296,131	0	1	39	2,455	3	276	0	1
	4	2,567	298,698	0	1	144	2,599	14	290	0	1
	5	1,382	300,080	0	1	243	2,842	24	314	0	1
	6	724	300,804	0	1	125	2,967	27	341	0	1
	7	741	301,545	0	1	70	3,037	32	373	1	2
	8	328	301,873	0	1	28	3,065	37	410	1	3
	9	127	302,000	0	1	17	3,082	28	438	0	3
	10	2,349	304,349	0	1	119	3,201	75	513	0	3
	11	1,011	305,360	0	1	112	3,313	31	544	0	3
	12	1,200	306,560	0	1	500	3,813	350	894	0	3

Appendix E.9. Litnik system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	SOCKEYE Daily	SOCKEYE Accum	KINGS Daily	KINGS Accum	COHOS Daily	COHOS Accum	PINKS Daily	PINKS Accum	CHUMS Daily	CHUMS Accum
May 20	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0
22	13	13	0	0	0	0	0	0	0	0
23	1	14	0	0	0	0	0	0	0	0
24	4	18	0	0	0	0	0	0	0	0
25	8	26	0	0	0	0	0	0	0	0
26	38	64	0	0	0	0	0	0	0	0
27	2	66	0	0	0	0	0	0	0	0
28	40	106	0	0	0	0	0	0	0	0
29	4	110	0	0	0	0	0	0	0	0
30	11	121	0	0	0	0	0	0	0	0
31	88	209	0	0	0	0	0	0	0	0
Jun 1	302	511	0	0	0	0	0	0	0	0
2	288	799	0	0	0	0	0	0	0	0
3	1,319	2,118	0	0	0	0	0	0	0	0
4	1,337	3,455	0	0	0	0	0	0	0	0
5	896	4,351	0	0	0	0	0	0	0	0
6	1,549	5,900	0	0	0	0	0	0	0	0
7	1,058	6,958	0	0	0	0	0	0	0	0
8	400	7,358	0	0	0	0	0	0	0	0
9	1,320	8,678	0	0	0	0	0	0	0	0
10	439	9,117	0	0	0	0	0	0	0	0
11	1,673	10,790	0	0	0	0	0	0	0	0
12	1,850	12,640	0	0	0	0	0	0	0	0
13	882	13,522	0	0	0	0	0	0	0	0
14	919	14,441	0	0	0	0	0	0	0	0
15	485	14,926	0	0	0	0	0	0	0	0
16	463	15,389	0	0	0	0	0	0	0	0
17	2,568	17,957	0	0	0	0	0	0	0	0
18	596	18,553	0	0	0	0	0	0	0	0
19	395	18,948	0	0	0	0	0	0	0	0
20	253	19,201	0	0	0	0	0	0	0	0
21	950	20,151	0	0	0	0	0	0	0	0
22	577	20,728	0	0	0	0	0	0	0	0
23	386	21,114	0	0	0	0	0	0	0	0
24	389	21,503	0	0	0	0	0	0	0	0
25	730	22,233	0	0	0	0	0	0	0	0
26	518	22,751	0	0	0	0	0	0	0	0
27	1,005	23,756	0	0	0	0	0	0	0	0
28	424	24,180	0	0	0	0	1	1	0	0
29	135	24,315	0	0	0	0	0	1	0	0
30	181	24,496	0	0	0	0	0	1	0	0
Jul 1	299	24,795	0	0	0	0	0	1	0	0
2	122	24,917	0	0	0	0	0	1	0	0
3	834	25,751	0	0	0	0	0	1	0	0
4	330	26,081	0	0	0	0	0	1	0	0
5	88	26,169	0	0	0	0	0	1	0	0
6	91	26,260	1	1	0	0	0	1	2	2
7	359	26,619	0	1	0	0	0	1	0	2
8	552	27,171	0	1	0	0	0	1	0	2
9	175	27,346	0	1	0	0	0	1	0	2
10	48	27,394	0	1	0	0	0	1	0	2
11	11	27,405	0	1	0	0	0	1	0	2
12	0	27,405	0	1	0	0	0	1	0	2
13	0	27,405	0	1	0	0	0	1	0	2
14	304	27,709	0	1	0	0	0	1	0	2
15	160	27,869	0	1	0	0	0	1	0	2
16	281	28,150	0	1	0	0	0	1	0	2
17	63	28,213	0	1	0	0	0	1	0	2
18	29	28,242	0	1	0	0	0	1	0	2

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Appendix E.9. (page 2 of 2)

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
19	0	28,242	0	1	0	0	0	1	0	2
20	504	28,746	0	1	1	1	0	1	0	2
21	71	28,817	0	1	0	1	1	2	0	2
22	110	28,927	0	1	1	2	0	2	0	2
23	135	29,062	0	1	0	2	0	2	0	2
24	805	29,867	0	1	1	3	1	3	0	2
25	248	30,115	0	1	0	3	0	3	0	2
26	88	30,203	0	1	0	3	0	3	0	2
27	102	30,305	0	1	0	3	0	3	0	2
28	0	30,305	0	1	0	3	0	3	0	2
29	242	30,547	0	1	10	13	1	4	0	2
30	92	30,639	0	1	0	13	0	4	0	2
31	0	30,639	0	1	0	13	0	4	0	2
Aug 1	188	30,827	0	1	4	17	12	16	0	2
2	88	30,915	0	1	2	19	5	21	0	2
3	24	30,939	0	1	0	19	0	21	0	2
4	187	31,126	0	1	0	19	8	29	0	2
5	207	31,333	0	1	0	19	3	32	0	2
6	204	31,537	0	1	0	19	74	106	1	3
7	430	31,967	0	1	7	26	129	235	0	3
8	421	32,388	0	1	8	34	551	786	0	3
9	90	32,478	0	1	2	36	110	896	0	3
10	315	32,793	0	1	30	66	812	1,708	0	3
11	154	32,947	0	1	11	77	333	2,041	0	3
12	195	33,142	0	1	33	110	565	2,606	0	3
13	177	33,319	0	1	38	148	378	2,984	0	3
14	39	33,358	0	1	1	149	136	3,120	0	3
15	28	33,386	0	1	2	151	141	3,261	1	4
16	13	33,399	0	1	1	152	127	3,388	0	4
17	757	34,156	0	1	358	510	8,393	11,781	2	6
18	1,299	35,455	0	1	236	746	2,140	13,921	0	6
19	257	35,712	0	1	55	801	316	14,237	0	6
20	523	36,235	0	1	215	1,016	884	15,121	0	6
21	2,208	38,443	0	1	1,295	2,311	11,153	26,274	0	6
22	177	38,620	0	1	178	2,489	3,545	29,819	0	6
23	114	38,734	0	1	171	2,660	1,635	31,454	0	6
24	61	38,795	0	1	314	2,974	417	31,871	0	6
25	191	38,986	0	1	3,525	6,499	47,541	79,412	0	6
26	10	38,996	0	1	456	6,955	8,538	87,950	0	6
27	1	38,997	0	1	162	7,117	3,518	91,468	1	7
28	6	39,003	0	1	1,216	8,333	28,495	119,963	1	8
29	2	39,005	0	1	130	8,463	1,435	121,398	0	8
30	1	39,006	1	2	150	8,613	1,771	123,169	1	9
31	0	39,006	0	2	66	8,679	867	124,036	0	9
Sep 1	0	39,006	0	2	15	8,694	125	124,161	0	9
2	1	39,007	0	2	27	8,721	329	124,490	0	9
3	0	39,007	0	2	12	8,733	278	124,768	0	9
4	0	39,007	0	2	4	8,737	191	124,959	0	9
5	1	39,008	0	2	14	8,751	641	125,600	1	10
6	4	39,012	0	2	11	8,762	1,219	126,819	1	11
7	0	39,012	0	2	10	8,772	801	127,620	0	11
8	0	39,012	0	2	0	8,772	586	128,206	0	11
9	0	39,012	0	2	1,000	9,772	20,000	148,206	0	11

Appendix E.10. Pauls Bay system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	SOCKEYE Daily	SOCKEYE Accum	KINGS Daily	KINGS Accum	COHOS Daily	COHOS Accum	PINKS Daily	PINKS Accum	CHUMS Daily	CHUMS Accum
May 30	0	0	0	0	0	0	0	0	0	0
31	0	0	0	0	0	0	0	0	0	0
Jun 1	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0
3	65	65	0	0	0	0	0	0	0	0
4	114	179	0	0	0	0	0	0	0	0
5	18	197	0	0	0	0	0	0	0	0
6	962	1,159	0	0	0	0	0	0	0	0
7	4	1,163	0	0	0	0	0	0	0	0
8	0	1,163	0	0	0	0	0	0	0	0
9	52	1,215	0	0	0	0	0	0	0	0
10	0	1,215	0	0	0	0	0	0	0	0
11	308	1,523	0	0	0	0	0	0	0	0
12	33	1,556	0	0	0	0	0	0	0	0
13	347	1,903	0	0	0	0	0	0	0	0
14	1,112	3,015	0	0	0	0	0	0	0	0
15	183	3,198	0	0	0	0	0	0	0	0
16	0	3,198	0	0	0	0	0	0	0	0
17	1,677	4,875	0	0	0	0	0	0	0	0
18	938	5,813	0	0	0	0	0	0	0	0
19	1,645	7,458	0	0	0	0	0	0	0	0
20	1,519	8,977	0	0	0	0	0	0	0	0
21	1,951	10,928	0	0	0	0	0	0	0	0
22	26	10,954	0	0	0	0	0	0	0	0
23	242	11,196	0	0	0	0	0	0	0	0
24	1,538	12,734	0	0	0	0	0	0	0	0
25	1,025	13,759	0	0	0	0	0	0	0	0
26	56	13,815	0	0	0	0	0	0	0	0
27	23	13,838	0	0	0	0	0	0	0	0
28	407	14,245	0	0	0	0	0	0	0	0
29	2,455	16,700	0	0	0	0	0	0	0	0
30	941	17,641	0	0	0	0	0	0	0	0
Jul 1	443	18,084	0	0	0	0	0	0	0	0
2	357	18,441	0	0	0	0	0	0	0	0
3	133	18,574	0	0	0	0	0	0	0	0
4	40	18,614	0	0	0	0	0	0	0	0
5	48	18,662	0	0	0	0	0	0	0	0
6	96	18,758	0	0	0	0	0	0	0	0
7	392	19,150	0	0	0	0	0	0	0	0
8	35	19,185	0	0	0	0	0	0	0	0
9	1,438	20,623	0	0	0	0	0	0	0	0
10	46	20,669	0	0	0	0	0	0	0	0
11	737	21,406	0	0	0	0	0	0	0	0
12	476	21,882	0	0	0	0	0	0	0	0
13	41	21,923	0	0	0	0	0	0	0	0
14	66	21,989	0	0	0	0	0	0	0	0
15	80	22,069	0	0	0	0	0	0	0	0
16	12	22,081	0	0	0	0	0	0	0	0
17	3	22,084	0	0	0	0	0	0	0	0
18	0	22,084	0	0	0	0	0	0	0	0
19	4	22,088	0	0	0	0	0	0	0	0
20	3	22,091	0	0	0	0	0	0	0	0
21	0	22,091	0	0	0	0	0	0	0	0
22	50	22,141	0	0	0	0	0	0	0	0
23	169	22,310	0	0	0	0	0	0	0	0
24	113	22,423	0	0	0	0	0	0	0	0
25	17	22,440	0	0	0	0	0	0	0	0
26	11	22,451	0	0	0	0	0	0	0	0
27	0	22,451	0	0	0	0	0	0	0	0
28	1	22,452	0	0	0	0	0	0	0	0

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Appendix E.10. (page 2 of 2)

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
29	7	22,459	0	0	0	0	0	0	0	0
30	15	22,474	0	0	0	0	0	0	0	0
31	0	22,474	0	0	0	0	0	0	0	0
Aug 1	1	22,475	0	0	0	0	0	0	0	0
2	24	22,499	0	0	5	5	9	9	2	2
3	4	22,503	0	0	0	5	0	9	0	2
4	7	22,510	0	0	0	5	0	9	1	3
5	5	22,515	0	0	0	5	0	9	0	3
6	2	22,517	0	0	0	5	0	9	0	3
7	91	22,608	0	0	26	31	0	9	0	3
8	30	22,638	0	0	13	44	0	9	0	3
9	0	22,638	0	0	1	45	0	9	0	3
10	0	22,638	0	0	0	45	0	9	0	3
11	2	22,640	0	0	0	45	0	9	0	3
12	6	22,646	0	0	0	45	0	9	0	3
13	0	22,646	0	0	0	45	0	9	0	3
14	1	22,647	0	0	0	45	0	9	0	3
15	0	22,647	0	0	0	45	0	9	0	3
16	0	22,647	0	0	0	45	0	9	0	3
17	3	22,650	0	0	0	45	0	9	0	3
18	21	22,671	0	0	69	114	2	11	0	3
19	0	22,671	0	0	29	143	0	11	0	3
20	57	22,728	0	0	589	732	23	34	0	3
21	31	22,759	0	0	1,344	2,076	40	74	0	3
22	13	22,772	0	0	538	2,614	74	148	0	3
23	5	22,777	0	0	135	2,749	15	163	0	3
24	7	22,784	0	0	652	3,401	36	199	0	3
25	9	22,793	0	0	805	4,206	62	261	0	3
26	1	22,794	0	0	485	4,691	77	338	0	3
27	0	22,794	0	0	86	4,777	17	355	0	3
28	0	22,794	0	0	173	4,950	10	365	0	3
29	0	22,794	0	0	338	5,288	28	393	0	3
30	0	22,794	0	0	20	5,308	1	394	0	3
31	0	22,794	0	0	135	5,443	19	413	0	3
Sep 1	0	22,794	0	0	30	5,473	6	419	0	3
2	0	22,794	0	0	17	5,490	1	420	0	3
3	0	22,794	0	0	73	5,563	14	434	0	3

Appendix E.11. Thorsheim system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date		----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
Jun	2	0	0	0	0	0	0	0	0	0	0
	3	0	0	0	0	0	0	0	0	0	0
	4	0	0	0	0	0	0	0	0	0	0
	5	68	68	0	0	0	0	0	0	0	0
	6	216	284	0	0	0	0	0	0	0	0
	7	157	441	0	0	0	0	0	0	0	0
	8	48	489	0	0	0	0	0	0	0	0
	9	603	1,092	0	0	0	0	0	0	0	0
	10	97	1,189	0	0	0	0	0	0	0	0
	11	19	1,208	0	0	0	0	0	0	0	0
	12	0	1,208	0	0	0	0	0	0	0	0
	13	2	1,210	0	0	0	0	0	0	0	0
	14	0	1,210	0	0	0	0	0	0	0	0
	15	32	1,242	0	0	0	0	0	0	0	0
	16	23	1,265	0	0	0	0	0	0	0	0
	17	46	1,311	0	0	0	0	0	0	0	0
	18	128	1,439	0	0	0	0	0	0	0	0
	19	217	1,656	0	0	0	0	0	0	0	0
	20	186	1,842	0	0	0	0	0	0	0	0
	21	41	1,883	0	0	0	0	0	0	0	0
	22	61	1,944	0	0	0	0	0	0	0	0
	23	0	1,944	0	0	0	0	0	0	0	0
	24	0	1,944	0	0	0	0	0	0	0	0
	25	45	1,989	0	0	0	0	0	0	0	0
	26	66	2,055	0	0	0	0	0	0	0	0
	27	7	2,062	0	0	0	0	0	0	0	0
	28	25	2,087	0	0	0	0	0	0	0	0
	29	12	2,099	0	0	0	0	0	0	0	0
	30	0	2,099	0	0	0	0	0	0	0	0
Jul	1	633	2,732	0	0	0	0	0	0	0	0
	2	0	2,732	0	0	0	0	0	0	0	0
	3	61	2,793	0	0	0	0	0	0	0	0
	4	95	2,888	0	0	0	0	0	0	0	0
	5	97	2,985	0	0	0	0	0	0	0	0
	6	7	2,992	0	0	0	0	0	0	0	0
	7	460	3,452	0	0	0	0	0	0	0	0
	8	143	3,595	0	0	0	0	0	0	0	0
	9	253	3,848	0	0	0	0	0	0	0	0
	10	181	4,029	0	0	0	0	0	0	0	0
	11	175	4,204	0	0	0	0	0	0	0	0
	12	13	4,217	0	0	0	0	0	0	0	0

Appendix E.12. Saltery system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	SOCKEYE Daily	SOCKEYE Accum	KINGS Daily	KINGS Accum	COHOS Daily	COHOS Accum	PINKS Daily	PINKS Accum	CHUMS Daily	CHUMS Accum
Jun 16	0	0	0	0	0	0	0	0	0	0
17	47	47	0	0	0	0	0	0	0	0
18	62	109	0	0	0	0	0	0	0	0
19	23	132	0	0	0	0	0	0	0	0
20	114	246	0	0	0	0	0	0	0	0
21	117	363	0	0	0	0	0	0	0	0
22	56	419	0	0	0	0	0	0	0	0
23	69	488	0	0	0	0	0	0	0	0
24	50	538	0	0	0	0	0	0	0	0
25	341	879	0	0	0	0	0	0	0	0
26	76	955	0	0	0	0	0	0	0	0
27	207	1,162	0	0	0	0	0	0	0	0
28	930	2,092	0	0	0	0	0	0	0	0
29	691	2,783	0	0	0	0	0	0	0	0
30	166	2,949	0	0	0	0	0	0	0	0
Jul 1	105	3,054	0	0	0	0	0	0	0	0
2	969	4,023	0	0	0	0	0	0	0	0
3	349	4,372	0	0	0	0	0	0	0	0
4	277	4,649	0	0	0	0	0	0	0	0
5	745	5,394	1	1	0	0	1	1	1	1
6	1,720	7,114	0	1	0	0	0	1	0	1
7	573	7,687	1	2	0	0	3	4	0	1
8	606	8,293	0	2	0	0	1	5	0	1
9	214	8,507	0	2	0	0	5	10	0	1
10	124	8,631	0	2	0	0	2	12	0	1
11	590	9,221	0	2	0	0	20	32	0	1
12	1,325	10,546	0	2	0	0	13	45	0	1
13	265	10,811	0	2	0	0	7	52	0	1
14	857	11,668	0	2	0	0	9	61	0	1
15	288	11,956	0	2	0	0	8	69	0	1
16	251	12,207	0	2	0	0	8	77	0	1
17	255	12,462	0	2	0	0	17	94	0	1
18	615	13,077	0	2	0	0	60	154	0	1
19	1,273	14,350	0	2	0	0	36	190	0	1
20	1,125	15,475	0	2	0	0	29	219	0	1
21	264	15,739	0	2	0	0	10	229	0	1
22	247	15,986	0	2	0	0	9	238	0	1
23	321	16,307	0	2	0	0	3	241	0	1
24	325	16,632	0	2	0	0	7	248	0	1
25	387	17,019	0	2	0	0	12	260	0	1
26	91	17,110	0	2	0	0	16	276	0	1
27	564	17,674	0	2	0	0	34	310	0	1
28	1,521	19,195	0	2	0	0	127	437	1	2
29	1,194	20,389	1	3	0	0	84	521	7	9
30	51	20,440	0	3	0	0	15	536	0	9
31	94	20,534	0	3	0	0	21	557	0	9
Aug 1	132	20,666	0	3	0	0	25	582	0	9
2	105	20,771	0	3	0	0	22	604	0	9
3	183	20,954	0	3	0	0	26	630	0	9
4	59	21,013	0	3	0	0	19	649	0	9
5	107	21,120	0	3	0	0	34	683	0	9
6	110	21,230	0	3	0	0	43	726	0	9
7	337	21,567	0	3	0	0	106	832	3	12
8	222	21,789	0	3	0	0	39	871	0	12
9	75	21,864	1	4	0	0	40	911	0	12
10	67	21,931	0	4	0	0	46	957	0	12
11	50	21,981	1	5	0	0	74	1,031	2	14
12	118	22,099	0	5	0	0	105	1,136	0	14
13	622	22,721	2	7	0	0	138	1,274	0	14
14	55	22,776	1	8	1	1	69	1,343	0	14

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Appendix E.12. (page 2 of 2)

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
15	40	22,816	0	8	0	1	52	1,395	1	15
16	43	22,859	0	8	1	2	110	1,505	0	15
17	664	23,523	1	9	14	16	1,233	2,738	2	17
18	133	23,656	0	9	3	19	162	2,900	1	18
19	23	23,679	0	9	2	21	34	2,934	0	18
20	57	23,736	0	9	2	23	25	2,959	0	18
21	44	23,780	0	9	7	30	118	3,077	0	18
22	55	23,835	0	9	12	42	109	3,186	0	18
23	22	23,857	0	9	7	49	99	3,285	0	18
24	29	23,886	0	9	5	54	78	3,363	3	21
25	405	24,291	3	12	121	175	1,050	4,413	2	23
26	377	24,668	0	12	58	233	637	5,050	1	24
27	93	24,761	0	12	41	274	268	5,318	0	24
28	479	25,240	0	12	218	492	1,252	6,570	1	25
29	60	25,300	0	12	202	694	162	6,732	1	26
30	34	25,334	0	12	95	789	73	6,805	0	26
31	27	25,361	0	12	87	876	33	6,838	0	26
Sep 1	18	25,379	0	12	111	987	21	6,859	0	26
2	37	25,416	0	12	241	1,228	134	6,993	0	26
3	114	25,530	0	12	617	1,845	301	7,294	1	27
4	16	25,546	0	12	257	2,102	45	7,339	0	27
5	9	25,555	0	12	184	2,286	40	7,379	1	28
6	17	25,572	0	12	262	2,548	55	7,434	0	28
7	5	25,577	0	12	34	2,582	32	7,466	0	28
8	8	25,585	0	12	64	2,646	17	7,483	0	28
9	8	25,593	0	12	50	2,696	41	7,524	0	28
10	23	25,616	0	12	144	2,840	62	7,586	0	28
11	38	25,654	0	12	362	3,202	60	7,646	0	28
12	0	25,654	0	12	1,500	4,702	0	7,646	0	28

Appendix E.13. Buskin system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
May 9	2	2	0	0	0	0	0	0	0	0
10	0	2	0	0	0	0	0	0	0	0
11	3	5	0	0	0	0	0	0	0	0
12	0	5	0	0	0	0	0	0	0	0
13	0	5	0	0	0	0	0	0	0	0
14	1	6	0	0	0	0	0	0	0	0
15	4	10	0	0	0	0	0	0	0	0
16	0	10	0	0	0	0	0	0	0	0
17	0	10	0	0	0	0	0	0	0	0
18	0	10	0	0	0	0	0	0	0	0
19	0	10	0	0	0	0	0	0	0	0
20	0	10	0	0	0	0	0	0	0	0
21	1	11	0	0	0	0	0	0	0	0
22	0	11	0	0	0	0	0	0	0	0
23	0	11	0	0	0	0	0	0	0	0
24	1	12	0	0	0	0	0	0	0	0
25	17	29	0	0	0	0	0	0	0	0
26	7	36	0	0	0	0	0	0	0	0
27	31	67	0	0	0	0	0	0	0	0
28	23	90	0	0	0	0	0	0	0	0
29	9	99	0	0	0	0	0	0	0	0
30	1	100	0	0	0	0	0	0	0	0
31	1	101	0	0	0	0	0	0	0	0
Jun 1	0	101	0	0	0	0	0	0	0	0
2	1	102	0	0	0	0	0	0	0	0
3	134	236	0	0	0	0	0	0	0	0
4	65	301	0	0	0	0	0	0	0	0
5	185	486	0	0	0	0	0	0	0	0
6	169	655	0	0	0	0	0	0	0	0
7	14	669	0	0	0	0	0	0	0	0
8	150	819	0	0	0	0	0	0	0	0
9	61	880	0	0	0	0	0	0	0	0
10	10	890	0	0	0	0	0	0	0	0
11	19	909	0	0	0	0	0	0	0	0
12	0	909	0	0	0	0	0	0	0	0
13	22	931	0	0	0	0	0	0	0	0
14	88	1,019	0	0	0	0	0	0	0	0
15	18	1,037	0	0	0	0	0	0	0	0
16	503	1,540	0	0	0	0	0	0	0	0
17	2,493	4,033	0	0	0	0	0	0	0	0
18	138	4,171	0	0	0	0	0	0	0	0
19	89	4,260	0	0	0	0	0	0	0	0
20	84	4,344	0	0	0	0	0	0	0	0
21	364	4,708	0	0	0	0	0	0	0	0
22	216	4,924	0	0	0	0	0	0	0	0
23	180	5,104	0	0	0	0	0	0	0	0
24	77	5,181	0	0	0	0	1	1	0	0
25	69	5,250	0	0	0	0	0	1	0	0
26	314	5,564	0	0	0	0	0	1	0	0
27	186	5,750	0	0	0	0	0	1	0	0
28	8	5,758	0	0	0	0	0	1	0	0
29	187	5,945	0	0	0	0	0	1	0	0
30	1	5,946	0	0	0	0	0	1	0	0
Jul 1	10	5,956	0	0	0	0	0	1	0	0
2	4	5,960	0	0	0	0	0	1	0	0
3	40	6,000	0	0	0	0	0	1	0	0
4	10	6,010	0	0	0	0	1	2	0	0
5	4	6,014	0	0	0	0	0	2	0	0
6	1,255	7,269	0	0	0	0	2	4	1	1
7	77	7,346	0	0	0	0	0	4	0	1

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Appendix E.13. (page 2 of 3)

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
8	7	7,353	0	0	0	0	0	4	0	1
9	25	7,378	0	0	0	0	1	5	0	1
10	44	7,422	0	0	0	0	4	9	0	1
11	99	7,521	0	0	0	0	3	12	0	1
12	96	7,617	0	0	0	0	3	15	0	1
13	1,331	8,948	0	0	0	0	16	31	0	1
14	4	8,952	0	0	0	0	2	33	0	1
15	24	8,976	0	0	0	0	19	52	0	1
16	31	9,007	0	0	0	0	16	68	0	1
17	31	9,038	0	0	0	0	29	97	0	1
18	10	9,048	0	0	0	0	3	100	1	2
19	1,237	10,285	0	0	0	0	68	168	4	6
20	140	10,425	0	0	0	0	47	215	0	6
21	15	10,440	0	0	0	0	100	315	0	6
22	17	10,457	0	0	0	0	247	562	1	7
23	11	10,468	0	0	0	0	233	795	0	7
24	10	10,478	0	0	0	0	315	1,110	0	7
25	50	10,528	0	0	0	0	644	1,754	0	7
26	120	10,648	0	0	0	0	785	2,539	0	7
27	65	10,713	0	0	0	0	955	3,494	0	7
28	43	10,756	0	0	0	0	1,189	4,683	0	7
29	764	11,520	0	0	0	0	3,459	8,142	25	32
30	23	11,543	0	0	0	0	3,344	11,486	0	32
31	11	11,554	0	0	0	0	5,956	17,442	1	33
Aug 1	37	11,591	0	0	0	0	6,190	23,632	0	33
2	49	11,640	0	0	0	0	11,061	34,693	0	33
3	46	11,686	0	0	2	2	11,938	46,631	1	34
4	58	11,744	0	0	0	2	15,513	62,144	0	34
5	14	11,758	0	0	1	3	10,183	72,327	1	35
6	38	11,796	0	0	0	3	10,741	83,068	3	38
7	54	11,850	0	0	1	4	20,936	104,004	4	42
8	19	11,869	0	0	2	6	9,330	113,334	0	42
9	14	11,883	0	0	1	7	16,595	129,929	0	42
10	22	11,905	1	1	1	8	13,714	143,643	1	43
11	6	11,911	0	1	1	9	7,981	151,624	0	43
12	15	11,926	0	1	2	11	5,825	157,449	0	43
13	11	11,937	0	1	6	17	4,553	162,002	2	45
14	2	11,939	0	1	3	20	3,857	165,859	0	45
15	7	11,946	0	1	0	20	3,074	168,933	1	46
16	16	11,962	0	1	6	26	4,472	173,405	0	46
17	130	12,092	0	1	34	60	9,132	182,537	2	48
18	9	12,101	0	1	12	72	2,271	184,808	0	48
19	4	12,105	0	1	20	92	977	185,785	1	49
20	5	12,110	0	1	20	112	2,311	188,096	2	51
21	17	12,127	0	1	85	197	2,870	190,966	2	53
22	6	12,133	0	1	25	222	491	191,457	1	54
23	0	12,133	0	1	10	232	776	192,233	1	55
24	2	12,135	0	1	13	245	713	192,946	1	56
25	0	12,135	0	1	53	298	1,172	194,118	0	56
26	5	12,140	0	1	352	650	5,392	199,510	0	56
27	0	12,140	0	1	460	1,110	589	200,099	3	59
28	0	12,140	0	1	500	1,610	500	200,599	2	61
29	0	12,140	0	1	650	2,260	700	201,299	3	64
30	1	12,141	0	1	1,000	3,260	600	201,899	4	68
31	1	12,142	0	1	391	3,651	567	202,466	5	73
Sep 1	1	12,143	0	1	139	3,790	464	202,930	2	75
2	0	12,143	0	1	326	4,116	0	202,930	3	78
3	0	12,143	0	1	115	4,231	0	202,930	1	79
4	1	12,144	0	1	67	4,298	70	203,000	0	79
5	0	12,144	0	1	66	4,364	0	203,000	0	79
6	0	12,144	0	1	67	4,431	79	203,079	0	79

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Appendix E.13. (page 3 of 3)

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
7	0	12,144	0	1	122	4,553	569	203,648	1	80
8	0	12,144	0	1	20	4,573	0	203,648	0	80
9	0	12,144	0	1	51	4,624	0	203,648	2	82
10	0	12,144	0	1	133	4,757	0	203,648	0	82
11	0	12,144	0	1	229	4,986	0	203,648	0	82
12	0	12,144	0	1	174	5,160	0	203,648	0	82
13	0	12,144	0	1	145	5,305	0	203,648	0	82
14	0	12,144	0	1	82	5,387	0	203,648	1	83
15	0	12,144	0	1	40	5,427	0	203,648	0	83
16	0	12,144	0	1	21	5,448	0	203,648	1	84
17	0	12,144	0	1	28	5,476	0	203,648	0	84
18	0	12,144	0	1	14	5,490	0	203,648	0	84
19	0	12,144	0	1	155	5,645	0	203,648	0	84
20	0	12,144	0	1	41	5,686	0	203,648	0	84
21	0	12,144	0	1	39	5,725	0	203,648	0	84
22	0	12,144	0	1	23	5,748	0	203,648	0	84
23	0	12,144	0	1	80	5,828	0	203,648	0	84
24	0	12,144	0	1	954	6,782	0	203,648	0	84

Appendix E.14. Akalura system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	SOCKEYE Daily	SOCKEYE Accum	KINGS Daily	KINGS Accum	COHOS Daily	COHOS Accum	PINKS Daily	PINKS Accum	CHUMS Daily	CHUMS Accum
May 21	1	1	0	0	0	0	0	0	0	0
22	0	1	0	0	0	0	0	0	0	0
23	0	1	0	0	0	0	0	0	0	0
24	0	1	0	0	0	0	0	0	0	0
25	0	1	0	0	0	0	0	0	0	0
26	0	1	0	0	0	0	0	0	0	0
27	1	2	0	0	0	0	0	0	0	0
28	1	3	0	0	0	0	0	0	0	0
29	0	3	0	0	0	0	0	0	0	0
30	20	23	0	0	0	0	0	0	0	0
31	22	45	0	0	0	0	0	0	0	0
Jun 1	1	46	0	0	0	0	0	0	0	0
2	156	202	0	0	0	0	0	0	0	0
3	264	466	0	0	0	0	0	0	0	0
4	23	489	0	0	0	0	0	0	0	0
5	116	605	0	0	0	0	0	0	0	0
6	702	1,307	0	0	0	0	0	0	0	0
7	3	1,310	0	0	0	0	0	0	0	0
8	356	1,666	0	0	0	0	0	0	0	0
9	255	1,921	0	0	0	0	0	0	0	0
10	124	2,045	0	0	0	0	0	0	0	0
11	112	2,157	0	0	0	0	0	0	0	0
12	24	2,181	0	0	0	0	0	0	0	0
13	182	2,363	0	0	0	0	0	0	0	0
14	358	2,721	0	0	0	0	0	0	0	0
15	77	2,798	0	0	0	0	0	0	0	0
16	64	2,862	0	0	0	0	0	0	0	0
17	42	2,904	0	0	0	0	0	0	0	0
18	18	2,922	0	0	0	0	0	0	0	0
19	319	3,241	0	0	0	0	0	0	0	0
20	34	3,275	0	0	0	0	0	0	0	0
21	72	3,347	0	0	0	0	0	0	0	0
22	65	3,412	0	0	0	0	0	0	0	0
23	86	3,498	0	0	0	0	0	0	0	0
24	300	3,798	0	0	0	0	0	0	0	0
25	148	3,946	0	0	0	0	0	0	0	0
26	19	3,965	0	0	0	0	0	0	0	0
27	90	4,055	0	0	0	0	0	0	0	0
28	34	4,089	0	0	0	0	0	0	0	0
29	17	4,106	0	0	0	0	0	0	0	0
30	2	4,108	0	0	0	0	0	0	0	0
Jul 1	15	4,123	0	0	0	0	0	0	0	0
2	23	4,146	0	0	0	0	0	0	0	0
3	0	4,146	0	0	0	0	0	0	0	0
4	35	4,181	0	0	0	0	0	0	0	0
5	0	4,181	0	0	0	0	0	0	0	0
6	0	4,181	0	0	0	0	0	0	0	0
7	2	4,183	0	0	0	0	0	0	0	0
8	0	4,183	0	0	0	0	0	0	0	0
9	13	4,196	0	0	0	0	0	0	0	0
10	0	4,196	0	0	0	0	0	0	0	0
11	0	4,196	0	0	0	0	0	0	0	0
12	0	4,196	0	0	0	0	0	0	0	0
13	23	4,219	0	0	0	0	0	0	0	0
14	0	4,219	0	0	0	0	0	0	0	0
15	0	4,219	0	0	0	0	0	0	0	0
16	0	4,219	0	0	0	0	0	0	0	0
17	0	4,219	0	0	0	0	0	0	0	0
18	2	4,221	0	0	0	0	0	0	0	0
19	0	4,221	0	0	0	0	0	0	0	0

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Appendix E.14. (page 2 of 3)

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
20	2	4,223	0	0	0	0	0	0	0	0
21	15	4,238	0	0	0	0	0	0	0	0
22	17	4,255	0	0	0	0	0	0	0	0
23	0	4,255	0	0	0	0	0	0	0	0
24	0	4,255	0	0	0	0	0	0	0	0
25	0	4,255	0	0	0	0	0	0	0	0
26	0	4,255	0	0	0	0	0	0	0	0
27	0	4,255	0	0	0	0	0	0	0	0
28	7	4,262	0	0	0	0	0	0	0	0
29	286	4,548	0	0	0	0	0	0	0	0
30	1	4,549	0	0	0	0	0	0	0	0
31	0	4,549	0	0	0	0	0	0	0	0
Aug 1	0	4,549	0	0	0	0	0	0	0	0
2	4	4,553	0	0	0	0	2	2	0	0
3	0	4,553	0	0	0	0	0	2	0	0
4	0	4,553	0	0	0	0	0	2	0	0
5	0	4,553	0	0	0	0	0	2	0	0
6	0	4,553	0	0	0	0	0	2	0	0
7	472	5,025	0	0	0	0	2	4	0	0
8	12	5,037	0	0	0	0	0	4	0	0
9	0	5,037	0	0	0	0	0	4	0	0
10	0	5,037	0	0	0	0	0	4	0	0
11	0	5,037	0	0	0	0	0	4	0	0
12	4	5,041	0	0	0	0	0	4	0	0
13	112	5,153	0	0	0	0	3	7	0	0
14	1,470	6,623	0	0	0	0	3	10	0	0
15	508	7,131	0	0	0	0	17	27	0	0
16	1,780	8,911	0	0	1	1	342	369	0	0
17	5,344	14,255	0	0	18	19	1,173	1,542	0	0
18	70	14,325	1	1	0	19	47	1,589	0	0
19	86	14,411	0	1	2	21	97	1,686	0	0
20	15	14,426	0	1	0	21	1	1,687	0	0
21	193	14,619	0	1	11	32	78	1,765	0	0
22	136	14,755	0	1	44	76	517	2,282	0	0
23	178	14,933	0	1	42	118	127	2,409	0	0
24	462	15,395	0	1	33	151	152	2,561	0	0
25	1,664	17,059	0	1	124	275	2,277	4,838	0	0
26	1,021	18,080	0	1	40	315	1,544	6,382	0	0
27	57	18,137	0	1	177	492	334	6,716	0	0
28	848	18,985	0	1	153	645	427	7,143	0	0
29	881	19,866	0	1	203	848	2,701	9,844	0	0
30	63	19,929	0	1	68	916	200	10,044	0	0
31	373	20,302	0	1	187	1,103	623	10,667	0	0
Sep 1	283	20,585	0	1	383	1,486	835	11,502	0	0
2	2,383	22,968	0	1	3,218	4,704	5,141	16,643	0	0
3	3,427	26,395	0	1	171	4,875	1,079	17,722	0	0
4	54	26,449	0	1	0	4,875	9	17,731	0	0
5	51	26,500	0	1	0	4,875	222	17,953	0	0
6	152	26,652	0	1	125	5,000	1,038	18,991	0	0
7	864	27,516	0	1	82	5,082	1,146	20,137	0	0
8	1,884	29,400	0	1	100	5,182	1,033	21,170	0	0
9	10	29,410	0	1	0	5,182	160	21,330	0	0
10	1,200	30,610	0	1	250	5,432	1,000	22,330	0	0
11	6,217	36,827	0	1	406	5,838	5,012	27,342	0	0
12	1,055	37,882	0	1	10	5,848	244	27,586	0	0
13	51	37,933	0	1	5	5,853	32	27,618	0	0
14	42	37,975	0	1	1	5,854	30	27,648	0	0
15	18	37,993	0	1	1	5,855	19	27,667	0	0
16	40	38,033	0	1	1	5,856	37	27,704	0	0
17	90	38,123	0	1	4	5,860	49	27,753	0	0
18	15	38,138	0	1	0	5,860	7	27,760	0	0

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Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
19	250	38,388	0	1	80	5,940	150	27,910	0	0
20	30	38,418	0	1	15	5,955	40	27,950	0	0
21	25	38,443	0	1	5	5,960	35	27,985	0	0
22	25	38,468	0	1	5	5,965	25	28,010	0	0
23	150	38,618	0	1	150	6,115	0	28,010	0	0

Appendix E.15. Perenosa system daily and cumulative salmon escapement weir counts for the Kodiak Management Area, 1988.

Date	----SOCKEYE---- Daily	Accum	-----KINGS----- Daily	Accum	-----COHOS----- Daily	Accum	-----PINKS----- Daily	Accum	-----CHUMS----- Daily	Accum
Aug 7	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	1	1	3	3	0	0
9	0	0	0	0	0	1	0	3	0	0
10	8	8	0	0	14	15	43	46	0	0
11	0	8	0	0	0	15	0	46	0	0
12	8	16	0	0	19	34	70	116	0	0
13	0	16	0	0	8	42	15	131	0	0
14	0	16	0	0	0	42	0	131	0	0
15	1	17	0	0	0	42	61	192	0	0
16	0	17	0	0	46	88	288	480	0	0
17	3	20	0	0	390	478	4,836	5,316	0	0
18	1	21	0	0	75	553	7,294	12,610	0	0
19	3	24	0	0	276	829	10,369	22,979	0	0
20	0	24	0	0	60	889	405	23,384	0	0
21	0	24	0	0	199	1,088	5,504	28,888	0	0
22	2	26	0	0	222	1,310	5,670	34,558	0	0
23	0	26	0	0	0	1,310	435	34,993	0	0
24	0	26	0	0	0	1,310	0	34,993	0	0
25	0	26	0	0	235	1,545	2,129	37,122	0	0
26	0	26	0	0	200	1,745	2,918	40,040	0	0
27	0	26	0	0	56	1,801	290	40,330	0	0
28	0	26	0	0	178	1,979	509	40,839	0	0
29	0	26	0	0	32	2,011	121	40,960	0	0
30	0	26	0	0	68	2,079	179	41,139	0	0
31	0	26	0	0	4	2,083	23	41,162	0	0
Sep 1	0	26	0	0	0	2,083	0	41,162	0	0
2	0	26	0	0	34	2,117	239	41,401	0	0
3	0	26	0	0	37	2,154	74	41,475	0	0
4	0	26	0	0	200	2,354	15,000	56,475	0	0

Appendix E.16. Estimated age composition of Karluk River early run sockeye escapement, statistical weeks 22 through 29, 1988.a/

Statistical Week	Sample Size		AGES 1.2	2.1	1.3	2.2	3.1	2.3	3.2	2.4	3.3	Total
22	0	Percent	1.8	1.0	2.4	46.2	0.0	26.7	14.3	0.0	7.5	100.0
		Numbers	9	5	12	227	0	131	70	0	37	491
23	0	Percent	1.9	0.9	2.4	46.2	0.0	26.6	14.3	0.0	7.6	100.0
		Numbers	22	11	28	536	0	309	166	0	88	1,160
24	210	Percent	1.9	1.0	2.4	46.2	0.0	26.7	14.3	0.0	7.6	100.0
		Numbers	1,610	805	2,013	39,049	0	22,544	12,077	0	6,441	84,539
25	204	Percent	1.2	1.3	4.4	48.1	0.9	26.7	12.7	0.3	4.5	100.0
		Numbers	780	837	2,913	31,810	569	17,645	8,388	220	3,006	66,169
26	211	Percent	1.1	2.6	6.7	42.7	0.8	28.2	9.9	0.0	8.0	100.0
		Numbers	942	2,157	5,557	35,339	646	23,305	8,197	27	6,579	82,750
27	213	Percent	0.3	4.2	5.4	44.1	0.2	29.6	7.9	0.0	8.3	100.0
		Numbers	92	1,132	1,466	11,940	51	8,024	2,127	0	2,234	27,066
28	192	Percent	0.9	7.1	2.7	40.5	0.7	38.2	4.9	0.0	4.9	100.0
		Numbers	123	975	374	5,544	100	5,225	669	0	664	13,674
29	207	Percent	0.5	18.8	2.4	45.6	1.9	23.9	2.5	0.0	4.4	100.0
		Numbers	57	2,123	274	5,165	213	2,709	286	0	494	11,321
Total	1,237	Percent	1.3	2.8	4.4	45.1	0.5	27.8	11.1	0.1	6.8	100.0
		Numbers	3,635	8,045	12,637	129,610	1,579	79,892	31,980	247	19,543	287,170

a/ Age composition is calculated daily. Composition is based on two samples when the date falls between two sample dates. Composition is based on only one sample date when the date falls on a sample date, or before the first sample, or after the last sample.

Appendix E.17. Estimated age composition of Karluk River late run sockeye escapement, statistical weeks 30 through 38, 1988.a/

Statistical Week	Sample Size		AGES 1.2	2.1	1.3	2.2	3.1	2.3	3.2	3.3	Total
30	193	Percent	0.7	4.4	2.0	45.6	1.0	31.7	7.1	7.4	100.0
		Numbers	86	516	238	5,361	123	3,722	829	874	11,748
31	178	Percent	1.7	5.7	1.8	51.2	1.1	26.7	6.1	5.7	100.0
		Numbers	85	279	86	2,512	54	1,311	297	280	4,905
32	213	Percent	0.2	5.5	0.4	59.7	1.4	23.2	6.3	3.3	100.0
		Numbers	81	2,478	166	26,778	635	10,383	2,818	1,480	44,820
33	205	Percent	0.3	2.2	0.0	66.4	1.1	21.5	6.2	2.4	100.0
		Numbers	119	766	7	23,447	380	7,588	2,190	834	35,331
34	219	Percent	0.0	2.5	0.0	64.3	0.0	24.0	5.5	3.6	100.0
		Numbers	2	772	0	19,691	6	7,369	1,698	1,107	30,645
35	201	Percent	0.0	0.6	0.0	57.0	0.0	29.2	8.4	4.9	100.0
		Numbers	0	210	0	20,984	0	10,738	3,075	1,814	36,821
36	0	Percent	0.0	0.5	0.0	56.7	0.0	29.3	8.5	5.0	100.0
		Numbers	0	11	0	1,239	0	641	185	109	2,185
37	0	Percent	0.0	0.5	0.0	56.7	0.0	29.4	8.5	5.0	100.0
		Numbers	0	559	0	63,779	0	33,008	9,511	5,595	112,452
38	0	Percent	0.0	0.5	0.0	56.7	0.0	29.4	8.5	5.0	100.0
		Numbers	0	63	0	7,225	0	3,739	1,077	634	12,739
Total	1,209	Percent	0.1	1.9	0.2	58.6	0.4	26.9	7.4	4.4	100.0
		Numbers	373	5,654	497	171,016	1,198	78,499	21,680	12,727	291,646

a/ Age composition is calculated daily. Composition is based on two samples when the date falls between two sample dates. Composition is based on only one sample date when the date falls on a sample date, or before the first sample, or after the last sample.

Appendix E.18. Estimated age composition of the Red River early run sockeye escapement, statistical weeks 22 through 29, 1988.a/

Statistical Week	Sample Size		AGES 1.1	0.3	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	2.4	3.3	Total
22	0	Percent	0.5	0.0	10.1	1.5	25.3	27.7	0.0	0.0	32.9	1.0	0.0	1.0	100.0
		Numbers	4	0	79	12	197	216	0	0	256	8	0	8	779
23	198	Percent	0.5	0.0	10.6	1.5	26.0	27.4	0.0	0.0	32.1	0.9	0.0	1.0	100.0
		Numbers	95	9	2,189	312	5,374	5,653	0	0	6,632	191	0	199	20,653
24	208	Percent	0.5	0.3	14.0	1.7	30.9	24.4	0.0	0.0	27.2	0.3	0.0	0.6	100.0
		Numbers	117	68	3,067	367	6,755	5,327	0	0	5,933	72	0	140	21,847
25	38	Percent	8.0	0.2	17.2	6.0	27.5	18.1	0.0	0.0	22.8	0.0	0.0	0.2	100.0
		Numbers	873	26	1,875	660	3,006	1,973	0	0	2,487	0	0	26	10,925
26	189	Percent	20.5	1.1	19.8	16.0	13.3	17.3	0.3	0.0	11.1	0.1	0.0	0.5	100.0
		Numbers	8,438	458	8,147	6,570	5,475	7,105	132	0	4,551	61	0	193	41,131
27	208	Percent	22.3	0.8	19.2	21.4	8.0	17.2	0.0	0.2	9.0	0.8	0.2	1.0	100.0
		Numbers	7,104	258	6,125	6,840	2,547	5,474	0	53	2,868	258	53	311	31,890
28	218	Percent	11.0	1.0	29.8	15.0	9.6	19.5	0.0	0.5	11.1	0.8	0.3	1.3	100.0
		Numbers	3,740	350	10,076	5,092	3,260	6,593	0	160	3,764	285	95	445	33,860
29	201	Percent	13.9	0.5	33.3	19.9	7.5	16.9	0.0	0.5	7.0	0.0	0.0	0.5	100.0
		Numbers	4,840	174	11,586	6,914	2,597	5,885	0	173	2,427	1	0	174	34,771
Total	1,260	Percent	12.9	0.7	22.0	13.7	14.9	19.5	0.1	0.2	14.8	0.4	0.1	0.8	100.0
		Numbers	25,211	1,343	43,144	26,767	29,211	38,226	132	386	28,918	876	148	1,496	195,856

a/ Age composition is calculated daily. Composition is based on two samples when the date falls between two sample dates. Composition is based on only one sample date when the date falls on a sample date, or before the first sample, or after the last sample.

Appendix E.19. Estimated age composition of the Red River late run sockeye escapement, statistical weeks 30 through 36, 1988.a/

Statistical Week	Sample Size		AGES 1.1	1.2	2.1	1.3	2.2	1.4	2.3	3.2	3.3	Total
30	192	Percent	4.4	32.3	9.0	6.0	33.3	0.2	13.0	1.2	0.7	100.0
		Numbers	1,060	7,791	2,161	1,437	8,038	42	3,135	295	169	24,130
31	186	Percent	1.9	27.7	8.7	6.6	42.9	0.4	8.7	2.5	0.7	100.0
		Numbers	424	6,247	1,959	1,479	9,692	84	1,957	557	168	22,566
32	202	Percent	2.4	19.8	15.7	2.0	53.2	0.0	5.2	1.7	0.0	100.0
		Numbers	614	5,146	4,064	522	13,815	0	1,353	446	0	25,959
33	96	Percent	2.2	15.8	17.0	2.1	58.5	0.0	3.2	1.3	0.0	100.0
		Numbers	215	1,558	1,674	203	5,770	0	316	127	0	9,864
34	0	Percent	2.1	13.5	17.7	2.1	61.5	0.0	2.1	1.0	0.0	100.0
		Numbers	165	1,075	1,406	165	4,879	0	165	83	0	7,938
35	0	Percent	2.1	13.5	17.7	2.1	61.5	0.0	2.1	1.0	0.0	100.0
		Numbers	70	455	595	70	2,065	0	70	35	0	3,360
36	0	Percent	2.1	13.6	17.7	2.1	61.4	0.0	2.1	1.0	0.0	100.0
		Numbers	44	285	372	44	1,291	0	44	22	0	2,101
Total	676	Percent	2.7	23.5	12.8	4.1	47.5	0.1	7.3	1.6	0.4	100.0
		Numbers	2,592	22,557	12,231	3,920	45,550	126	7,040	1,565	337	95,918

a/ Age composition is calculated daily. Composition is based on two samples when the date falls between two sample dates. Calculations are based on only one sample date when the date falls on a sample date, or before the first sample, or after the last sample.

Appendix E.20. Estimated age composition of Fraser Lake sockeye escapement, statistical weeks 26 through 34, 1988. a/

Statistical Week	Sample Size		AGES 1.1	1.2	2.1	1.3	2.2	3.1	1.4	2.3	3.2	3.3	Total
26	0	Percent	0.0	0.9	0.0	5.0	87.4	0.0	0.0	3.2	3.6	0.0	100.0
		Numbers	0	32	0	177	3,119	0	0	113	129	0	3,569
27	222	Percent	0.0	1.2	4.8	3.6	85.5	0.0	0.3	1.7	2.7	0.3	100.0
		Numbers	0	759	3,088	2,305	54,755	0	163	1,112	1,735	163	64,078
28	209	Percent	0.0	1.2	6.3	2.3	85.0	0.2	0.2	2.7	1.9	0.2	100.0
		Numbers	0	1,008	5,332	1,991	72,478	186	212	2,260	1,593	212	85,272
29	220	Percent	0.1	1.3	7.7	2.4	82.3	0.6	0.0	4.0	1.8	0.0	100.0
		Numbers	72	789	4,824	1,502	51,863	358	0	2,494	1,144	0	63,046
30	222	Percent	0.3	2.1	23.0	2.2	67.7	1.6	0.0	0.6	2.5	0.2	100.0
		Numbers	51	379	4,206	400	12,396	288	0	102	452	31	18,304
31	225	Percent	0.0	1.8	26.7	1.3	63.6	2.7	0.0	0.0	3.6	0.4	100.0
		Numbers	0	155	2,324	116	5,538	232	0	0	310	39	8,714
32	0	Percent	0.0	1.7	26.6	1.3	63.6	2.7	0.0	0.0	3.6	0.4	99.9
		Numbers	0	20	307	15	733	31	0	0	41	5	1,153
33	0	Percent	0.0	1.8	26.7	1.3	63.6	2.7	0.0	0.0	3.5	0.5	100.0
		Numbers	0	43	649	32	1,546	65	0	0	86	11	2,432
34	0	Percent	0.0	1.5	26.5	1.5	63.2	2.9	0.0	0.0	3.7	0.7	100.0
		Numbers	0	2	36	2	86	4	0	0	5	1	136
Total	1,098	Percent	0.0	1.3	8.4	2.7	82.1	0.5	0.2	2.5	2.2	0.2	100.0
		Numbers	123	3,187	20,766	6,540	202,514	1,164	375	6,081	5,495	462	246,704

a/ Age composition is calculated daily. Composition is based on two samples when the date falls between two sample dates. Composition is based on only one sample date when the date falls on a sample date, or before the first sample, or after the last sample.

Appendix E.21. Estimated age composition of the Upper Station early run sockeye escapement, statistical weeks 22 through 29, 1988.a/

Statistical Week	Sample Size		AGES 0.2	1.1	0.3	1.2	2.1	1.3	2.2	1.4	2.3	3.2	Total
22	0	Percent	0.0	0.7	0.0	0.7	0.0	8.6	63.6	0.0	27.1	0.0	100.0
		Numbers	0	1	0	1	0	12	89	0	38	0	140
23	270	Percent	0.0	0.4	0.0	0.4	0.0	8.8	63.4	0.0	26.9	0.0	100.0
		Numbers	0	2	0	2	0	41	294	0	125	0	464
24	217	Percent	0.0	0.0	0.0	0.6	0.0	12.4	64.9	0.7	21.3	0.0	100.0
		Numbers	0	4	0	85	0	1,776	9,269	100	3,040	0	14,273
25	223	Percent	0.0	0.0	0.1	1.4	0.0	9.8	75.8	0.0	12.8	0.0	100.0
		Numbers	0	0	20	184	0	1,334	10,275	6	1,740	0	13,559
26	215	Percent	0.9	0.0	2.9	1.7	0.0	6.3	76.0	0.2	11.9	0.2	100.0
		Numbers	152	0	509	295	0	1,115	13,354	30	2,095	30	17,580
27	210	Percent	2.4	0.0	6.7	1.8	0.1	4.2	75.3	0.4	8.8	0.4	100.0
		Numbers	129	0	364	97	3	225	4,072	20	478	20	5,409
28	220	Percent	9.4	0.0	18.7	5.5	0.5	5.9	53.8	0.1	5.9	0.1	100.0
		Numbers	388	0	771	228	22	245	2,221	4	243	4	4,127
29	212	Percent	27.3	0.0	16.3	10.0	0.9	4.8	32.8	0.4	7.0	0.4	100.0
		Numbers	320	0	191	117	11	56	384	5	82	5	1,172
Total	1,567	Percent	1.7	0.0	3.3	1.8	0.1	8.5	70.4	0.3	13.8	0.1	100.0
		Numbers	989	7	1,855	1,009	36	4,804	39,958	165	7,841	59	56,724

a/ Age composition is calculated daily. Composition is based on two samples when the date falls between two sample dates. Composition is based on only one sample date when the date falls on a sample date, or before the first sample, or after the last sample.

Appendix E.22. Estimated age composition of the Upper Station late run sockeye escapement, statistical weeks 30 through 38, 1988.a/

Statistical Week	Sample Size		AGES 0.1	0.2	1.1	0.3	1.2	2.1	1.3	2.2	2.3	3.2	2.4	Total
30	215	Percent	0.0	46.3	0.0	12.9	27.8	0.0	9.2	2.8	0.9	0.0	0.0	100.0
		Numbers	0	1,490	0	416	896	0	297	91	30	0	0	3,220
31	218	Percent	0.0	50.9	0.0	10.7	22.2	0.0	8.5	5.8	1.1	0.4	0.2	100.0
		Numbers	0	16,561	0	3,492	7,231	0	2,771	1,900	365	126	63	32,510
32	212	Percent	0.0	43.4	0.0	15.2	20.6	0.0	12.3	6.3	1.2	0.7	0.3	100.0
		Numbers	0	18,833	0	6,616	8,956	0	5,329	2,740	521	299	149	43,443
33	207	Percent	0.0	60.7	0.0	11.7	18.7	0.0	5.8	2.7	0.3	0.0	0.0	100.0
		Numbers	0	39,288	0	7,564	12,117	0	3,757	1,739	225	14	7	64,710
34	215	Percent	0.2	64.7	0.2	3.0	27.0	0.5	2.7	1.6	0.0	0.0	0.0	100.0
		Numbers	56	16,492	56	770	6,878	139	700	404	5	0	0	25,501
35	216	Percent	0.7	54.6	0.8	2.6	26.6	1.9	0.5	12.3	0.0	0.0	0.0	100.0
		Numbers	221	17,709	260	850	8,629	630	168	3,986	0	0	0	32,452
36	207	Percent	0.1	59.0	0.5	5.9	3.9	1.0	0.5	29.0	0.1	0.1	0.0	100.0
		Numbers	33	22,167	170	2,210	1,480	385	182	10,887	38	19	0	37,571
37	193	Percent	0.5	73.7	0.0	4.3	5.0	1.0	0.5	13.4	1.0	0.5	0.0	100.0
		Numbers	40	6,058	2	350	414	85	42	1,105	81	40	0	8,218
38	0	Percent	0.5	74.6	0.0	4.2	5.2	1.0	0.5	12.4	1.0	0.5	0.0	100.0
		Numbers	11	1,650	0	92	115	23	11	275	23	11	0	2,211
Total	1,683	Percent	0.1	56.1	0.2	8.9	18.7	0.5	5.3	9.3	0.5	0.2	0.1	100.0
		Numbers	361	140,248	488	22,360	46,716	1,262	13,257	23,127	1,288	509	219	249,836

a/ Age composition is calculated daily. Composition is based on two samples when the date falls between two sample dates. Composition is based on only one sample date when the date falls on a sample date, or before the first sample, or after the last sample.

Appendix E.23. Salmon progeny years from 1988 brood year by species and age, Kodiak Management Area.

Age at Return	Pinks	Chums	Coho	Sockeye	Chinook
2	1990	-	-	-	-
3	-	1991	1991	-	-
4	-	1992	1992	1992	1992
5	-	1993	-	1993	1993
6	-	-	-	1994	1994

Appendix F.1. Preliminary forecast of the pink salmon return[1], Kodiak Management Area, 1988.

	Total Return	Escapement[2]	Harvest
Point Estimate (millions of fish):			
Natural Production	17.90	3.90	14.00
Hatchery Production	1.70	0.15	
KRAA Cost Recovery		0.30	1.25
Total Production	19.60	4.35	15.25
Range Estimate (millions of fish):			
Natural Production	16.20-19.50	3.90	2.30-15.60
Hatchery Production	0.93- 3.30	0.15	0.48- 2.85
KRAA Cost Recovery		0.30	
Total Production	17.13-22.80	4.35	12.78-18.45

[1] Hatchery production forecast is for Kitoi Bay Hatchery and was prepared by Hatchery Manager Tim Joyce. See Afognak District for additional discussion.
[2] All escapement numbers represent indexed escapement.

Forecast Methods:

The 1988 pink salmon forecast return to the Kodiak Management Area was determined as follows: A point estimate for the total management area natural return was calculated from a linear least squares regression analysis of the past 22 years pre-emergent data. Variables used in the analysis were the indexed live fry densities and the average April ambient air temperatures taken in Kodiak. The upper and lower range estimates are the 80% confidence intervals.

Discussion of the 1988 Forecast:

Pre-emergent fry sampling this spring (1987) indicated good to excellent over winter survival from the brood year escapement of 4.2 million pink salmon. Sampling resulted in an unweighted live fry index of 237.6 live fry/m^2. This fry index is one of he highest on record for an even year return.

Distribution of the brood year escapement resulted in 84% of the fish entering pre-emergent index streams. Sampling conditions during March of 1987 were generally very good on Kodiak and Afognak Islands. Sampling on the Mainland was limited by high winds and end of the helicopter contract period. The warmer, milder spring conditions in 1987 combined with the excellent fry densities are the main reasons for an above average forecast for the 1988 return.

-Continued-

A breakdown of the expected return by major geographical districts is summarized below. All district harvest projections assume desired escapement goals will be met.

Afognak District: The pre-emergent fry index was one of the highest on record. Considering the warmer April temperatures in 1987, a total of 895,000 pink salmon are expected to return. The desired escapement level is 250,000 pink salmon leaving 645,000 pink salmon available for harvesting.

Afognak District Supplemental Production: Kitoi Bay Hatchery total return point estimate is 1.7 million pink salmon from a release of 89.9 million fry. One hundred fifty thousand (150,000) pink salmon are required for escapement and broodstock and an additional 300,000 pink salmon may be required for the KRAA cost recovery program to assist in funding the hatchery operation. This would leave approximately 1.25 million pink salmon available for harvesting.

Westside District: The overall live fry density for this district is about average. As a result less than desired brood year escapement into Karluk River and lower than expected fry densities in Uganik and Uyak Rivers because of scouring; the expected return to this district is 11,450,000 pink salmon. The desired escapement goal is 2,250,000 pink salmon, leaving 9,206,000 pink salmon available for harvesting.

Alitak District: The live fry index for this district is above average. However, this may not necessarily reflect an above average return. Humpy Creek had excellent over winter fry survival, while the live fry densities for Deadman and Dog Salmon Rivers, due to scouring, were poor. In 1988, 1,253,000 pink salmon are expected to return to this district. the desired escapement goal is 500,000 pink salmon, leaving 753,000 pink salmon available for harvesting.

General District: The overall live fry index for the district is one of the best on record. Combined with the mild spring temperature (1987), a total of 3,580,000 pink salmon are expected to return. The desired escapement goal is 500,000 pink salmon, leaving approximately 3,000,000 pink salmon available for harvesting.

Mainland District: Fry sampling was limited to only six streams in 1987 due to high winds and the end of the helicopter contract. All streams sampled showed signs of scouring. Based on the success of the pink fry over winter survival on Kodiak and Afognak islands and the favorable early marine conditions, approximately 716,000 pink salmon are expected to return to this district. the escapement goal is 400,000 pink salmon leaving 316,000 pink salmon available for harvesting.

Appendix F.2. 1987 pink salmon pre-emergent project summary for the 1988 return in the Kodiak Management Area.

The 1987 Kodiak pre-emergent fry indexing field season began on March 3, 1987 and terminated April 10, 1987. A total of 42 streams were sampled, 8 were on Afognak Island, 28 were on Kodiak Island and 6 were on the Mainland. Additional sampling was done in the Kizhuyak and Terror River drainages as required by ADF&G involvement with the Terror Lake Hydroelectric Project.

Transportation to Buskin, American, Sid Olds, Monashka and Pillar streams was via state vehicle. Transportation to all other sampling sites was via a Bell 206 Long Ranger helicopter contracted from Alaska Helicopters, Inc. (State Contract Award #23375).

Ten drums (55 gallons each) of Jet B fuel were placed at Camp Island on December 5, 1986. Two of the drums were for F.R.E.D. use of helicopter. All ten drums were flown to Karluk Lake by Pen Air's Goose in two trips. Eight drums were used. The remaining two drums were used by F.R.E.D. removing Upper Thumb gear. Two drums of Jet B fuel were placed at Kitoi Bay hatchery in early March by the ADF&G vessel, the RESOLUTION. Both drums were used. Three drums of Jet B fuel were placed at Geographic Harbor by a Beaver chartered from Uyak Air. All three drums were used.

Karluk Lake was open during the entire project. Project personnel and gear were transported from Kodiak to Camp Island and returned by helicopter. F.R.E.D. personnel and gear arrived via float plane. Once again, use of the helicopter was scheduled to allow transportation of F.R.E.D. personnel to and from Upper Thumb sampling sites. In addition approximately one hour of flight time was used in moving a Canadian fan trap and accessories from the ADF&G Karluk Lagoon weir site to the outlet of Karluk Lake.

Thirty days were actually spent sampling. Helicopter arrived in Kodiak on March 6 and was released from contract on April 10. Once again this type of helicopter met the project's needs much better than the standard Jet Ranger. Mechanical problems with the helicopter were minimal; one day down time because of starting problems and one instance of "Battery Hot" warning light on.

Special Use Permits were also obtained from Koniag Inc., Old Harbor Village Corporation, and Akhiok Kaguyak Inc. for sampling streams on native owned or selected lands.

Kodiak was used as a base of operations. Camp Island on Karluk Lake, Kitoi Bay Hatchery, and Geographic Harbor cabin were utilized as temporary base camps.

Overall, stream water conditions were excellent for sampling. Following is a brief summary of the sampling results by district.

-Continued-

General District
Fourteen streams were sampled. Beaver Pond, Monashka, and Pillar Creeks were not included in the district total by index. The overall live fry index for this district is one of the best on record. A mild spring combined with the excellent fry densities the adult return in 1988 for this district should be strong.

Westside District
Ten streams were sampled. Uganik, Uyak and Zachar Rivers showed signs of scouring. Terror, Little, and Red Rivers looked very good. Karluk River had one of the lower fry indexes in recent years; this may just be a result of the lower number of adult spawners in 1986. The district's overall live fry index was about average; combined with a mild spring the adult return in 1988 should be average to slightly above average.

Alitak District
Four streams were sampled. Scouring was evident on lower Dog Salmon and Deadman Rivers. The overall live fry index for this district is slightly above average. However, this may not necessarily reflect above average return for the Alitak District. Humpy Creek had excellent over winter fry survival, while the live fry densities for Deadman and Dog Salmon were poor. Once again, a mild spring (1987) should improve early marine fry survival which may result in better returns to Dog Salmon and Deadman Rivers than their respective fry indexes would indicate.

Afognak District
Eight streams were sampled. Seal Bay and Waterfall Creek totals were not included in the district summaries. The overall live fry index for this district is one of the highest on record. The live fry indexes for Seal Bay and Waterfall were good., A mild spring should assist the returns to this district to be average or above. Additional production should be expected from Kitoi Bay Hatchery.

Mainland District
Fry sampling in this district was incomplete due to weather and end of helicopter contract. Moist streams sampled showed signs of scouring.

Tentative Outlook for 1988 Return
Based on Kodiak-Afognak live fry index and mild March-April temperatures the total return of pink salmon in 1988 may be 15-17 million fish. Approximately 4,000,000 pink salmon are needed for escapement leaving 11-13 million pink salmon available for harvest. Once again, additional production should be expected from Kitoi Bay Hatchery.

1987 Pre-Emergent Crew
David Prokopowich, Ted Staak, Steve Brown, Joan Organ. Pilot for Alaska Helicopters Inc., was Byron Wallace.

Appendix F.3. Pink salmon forecast based on established methodology in the Kodiak Management Area, 1988.

The method of the 1988 pink salmon forecast is that of linear least squares regression on various independent variables including fry density. This is as provided in the past. The models are the same as last year.

The standard approach in the past was to perform a Stepwise Regression to select the variables that are important to the model and use those variables in a linear regression so that 80% prediction and confidence intervals can be computed. The variables that entered the model were the weighted fry index and sum of the norms of the April and March temperatures (Table 1). The models provide point estimates of return strength varying from 15 to 19 million (Table 1). The prediction intervals and confidence intervals also show quite diversity, indicating a fairly high magnitude in variability, but much more stable than last year.

Table 1. Statistics on Kodiak pink salmon forecast models.

			80% C.I. Interval		80% Prediction Interval		Point
	R	MSE	Lower	Upper	Lower	Upper	Est.
Standard Approach	77.2	8.26	16.8	20.0	14.2	22.5	18.4
Fry[1] with:							
March	58.7	16.43	13.9	17.6	10.0	21.4	15.7
April	69.9	11.97	13.9	16.9	10.6	20.2	15.4
M+A dev	63.2	14.63	13.6	17.0	9.9	20.6	15.3
S(Md&Ad)	42.9	22.73	12.7	17.1	8.2	21.6	14.9
Fry[2] with:							
March	71.5	11.36	16.6	20.5	13.7	23.4	18.6
April	78.8	8.48	16.2	19.5	13.7	22.0	17.9
M+A dev	same as standard approach						
S(Md&Ad)	50.6	19.67	14.9	19.9	11.0	23.8	17.4

March = March temperature; April = April temperature
M+A dev = summation of March and April deviation from norm.
S(Md&Ad) = separate variables of March and April deviations from norm squared.

It is again recommended that the prediction intervals are appropriate when a future estimate is being discussed. If the criteria is to use the variables that are selected by stepwise regression, the standard approach value should be used.

Appendix F.4. Results of pre-emergent pink salmon fry sampling for 1988 return in the Kodiak Management Area, 1987.

Stream	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1987 Index LiveFry/M²	% Digs WithFry	1985 Index	1983 Index	Range of Development	H_2O Temp.
Perenosa - Up	20	4/01/87	577	7	96	36	155.21	60	57.03	185.34	85 - 90	3.0°C
Perenosa - Down	30	4/01/87	1,202	1	25	764	215.56	67	126.25	252.68	60 - 99	3.0°C
Perenosa (Total)	(50)		(1,779)	(8)	(121)	(800)	(191.42)	(64)	(98.56)	(225.74)		
Paramanoff	40	3/25/87	2,076	1	51	811	279.22	80	264.02	148.22	40 - 99	0.0°C
Malina	60	3/25/87	4,525	41	454	1,396	405.74	73	255.19	223.00	80 - 99	2.0°C
Afognak	50	4/01/87	564	3	4	1,761	60.69	80	74.03	91.68	40 - 99	4.0°C
Danger	40	3/24-26/87	1,306	2	8	61	175.66	55	176.60	113.79	30 - 95	1.0°C
Marka	60	3/26/87	965	0	34	60	86.53	33	102.76	161.76	40 - 95	2.0°C
Seal Bay (N)	(25)	3/24/87	(1,923)	(0)	(10)	(318)	(413.83)	(76)	(458.81)	(382.20)	20 - 80	2.0°C
Little Waterfall (N)	(10)	4/01/87	(458)	(0)	(27)	(1,645)	(246.40)	(80)	(631.07)	(117.28)	85 - 99	3.0°C
Afognak Total	**300**		**11,215**	**55**	**672**	**4,889**	**201.12**	**63%**	**159.11**	**160.63**	**30-99%**	
Baumans	30	3/10/87	3,484	0	1	2,640	624.80	97	387.72	374.09	20 - 90	0.0°C
Terror	50	3/31/87	660	0	3	1,462	71.02	56	107.60	22.38	80 - 99	4.0°C
Uganik	60	3/09/87	625	0	5	3,799	56.04	38	188.03	75.05	30 - 95	2.5°C
Little	40	3/10/87	1,710	0	0	224	230.00	53	43.14	1.61	50 - 95	1.5°C
Red - Up	60	3/15/87	5,403	0	34	3,507	484.47	98	720.92	476.40	50 - 99	1.0°C
Red - Down	60	3/15/87	3,197	0	0	2,906	286.66	90	384.49	385.75	80 - 90	1.0°C
Red (Total)	(120)		(8,600)	(0)	(34)	(6,413)	(385.57)	(94)	(552.71)	(431.07)		
Zachar - Up	30	3/14/87	232	0	0	22	41.61	3	116.03	-	95	2.0°C
Zachar - Down	20	3/14/87	76	0	0	648	20.44	25	135.04	-	95	2.0°C
Zachar (Total)	(50)		(308)	(0)	(0)	(670)	(33.14)	(12)	(123.63)	(4.52)		
Karluk	80	3/18/87	230	0	26	3,680	15.47	48	168.16	62.10	90 - 95	2.0°C
Uyak 202	60	3/12/87	382	0	0	100	34.25	70	97.11	30.99	80 - 95	4.0°C
Sturgeon	40	3/18/87	0	0	0	18	0	0	0	0	-	1.0°C
Browns	60	3/14/87	1,197	2	177	12,993	107.33	53	574.49	123.96	70 - 90	2.0°C
Westside Total	**590**		**17,196**	**2**	**246**	**31,963**	**156.80**	**50%**	**266.53**	**140.07**	**20 - 99%**	
Humpy - Up	30	3/16/87	4,422	0	96	1,023	793.01	90	276057	476.40	80 - 95	2.0°C
Humpy - Down	60	3/13/87	7,106	1	303	640	637.17	87	223.09	385.75	80 - 90	2.0°C
Humpy (Total)	(90)		(11,528)	(1)	(399)	(1,663)	(689.12)	(88)	(240.90)	(431.07)		
Dog Salmon	60	3/17/87	116	0	285	207	10.40	28	446.27	119.62	90 - 95	3.5°C
Narrows	30	3/17/87	992	0	21	146	177.90	53	73.17	93.97	85	2.0°C
Deadman	60	3/17/87	1,048	0	189	118	93.97	23	380.73	49.50	80 - 99	2.0°C
Alitak Total	**240**		**13,684**	**1**	**894**	**2,134**	**306.75**	**53%**	**306.23**	**212.62**	**30 - 95%**	

-Continued-

Stream	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1987 Index LiveFry/M²	% Digs WithFry	1985 Index	1983 Index	Range of Development	H_2O Temp.
Kaiugnak	50	3/16/87	4,597	0	127	668	494.64	86	121.80	17.32	80 - 95	2.0°C
Seven Rivers - Up	30	3/16/87	3,394	0	271	1,310	705.50	97	193.27	19.55	50 - 90	3.0°C
Seven Rivers - Down	60	3/13/87	8,323	2	624	4,938	746.30	98	727.29	346.56	30 - 95	0.0°C
Seven Rivers(Tot)	(90)		(12,257)	(2)	(895)	(6,248)	(732.70)	(98)	(549.24)	(237.56)		
Barling	40	3/19/87	1,244	0	0	305	167.32	35	118.23	22.17	90 - 95	3.0°C
Kiliuda	40	3/27/87	122	0	89	35	16.41	20	97.92	15.06	90 - 99	3.0°C
Saltery	50	3/20/87	904	1	0	111	97.27	36	90.28	3.34	99	2.0°C
Miam	60	3/31/87	676	3	15	61	60.61	37	38.74	19.37	99	3.0°C
Hurst	40	3/27/87	660	1	0	7	88.77	18	0	0	80 - 99	4.0°C
Sid Olds	50	3/08/87	2,801	0	2	235	301.39	48	356.48	60.69	40 - 95	2.0°C
American	60	3/11/87	3,094	0	29	186	277.43	37	84.90	17.99	60 - 95	4.0°C
Sheratin	50	3/10/87	1,567	0	34	2,681	168.61	58	421.90	119.76	60 - 90	3.0°C
Buskin - Up	20	3/03/87	1,943	9	2	467	522.67	80	534.23	319.03	60 - 95	1.0°C
Buskin - Down	40	3/04/87	3,990	0	64	2,955	536.66	83	395.63	690.79	60 - 90	1.0°C
Buskin (Total)	(60)		(5,933)	(9)	(66)	(3,422)	(531.99)	(82)	(641.83)	(566.87)		
Monashka (N)	20	4/05/87	580	0	77	404	156.02	70	-	90.92	90 - 99	5.0°C
Pillar (N)	25	4/05/87	589	0	45	1,401	126.75	88	-	46.02	80 - 95	4.0°C
Beaver Pond (N)	40	3/30/87	12	0	0	61	1.61	3	8.61	53.80	90	4.0°C
General Total	**590**		**33,855**	**16**	**1,251**	**13,959**	**308.71**	**55%**	**263.24**	**116.23**	**30 - 99%**	

KODIAK-AFOGNAK DISTRICTS TOTAL

	1,720		**75,950**	**74**	**3,069**	**52,945**	**237.56**	**54%**	**252.06**	**145.28**	**20 - 99%**	

Stream	Digs	Dig Dates	Live Fry	Live Eggs	Dead Fry	Dead Eggs	1987 Index LiveFry/M²	% Digs WithFry	1985 Index	1983 Index	Range of Development	H_2O Temp.
Missak	30	4/09/87	762	0	188	242	136.65	53	-	152.07	80 - 99	7.0°C
Geographic	20	4/08/87	0	0	0	0	0	0	-	0	-	4.0°C
Dakavak	30	4/10/87	296	0	31	168	53.08	33	-	6.99	90 - 99	2.0°C
Kashvik	40	4/08/87	47	0	2	394	6.32	3	-	0	75	2.0°C
Alinchak	30	4/08/87	167	0	0	92	29.95	7	-	0	80 - 95	5.0°C

* The remainder of the Mainland District Index streams were not sampled due to poor weather.

(N) = Non-Index Streams, results not included in District totals.

Appendix F.5. Indexed total return of selected pink salmon systems by district in the Kodiak Management Area, 1968-1988[a,b,c].

	EVEN-YEARS CYCLE											
Management Units	1968	1970	1972	1974	1976	1978	1980	1982	1984	1986	1988	MEAN
AFOGNAK (251-252)												
Harvest	.983	.856	.311	.071	.337	.797	1.656	.869	.734	1.203	2.885	.973
Escapement	.402	.415	.129	.125	.244	.305	.495	.328	.233	.369		
Total	1.385	1.271	.440	.196	.581	1.102	2.151	1.197	.967	1.572		
N.W. and S.E. - KODIAK COMBINED (253-256)												
Harvest	3.446	3.237	.515	.915	4.616	6.030	11.023	5.278	8.933	8.467	6.521	5.362
Escapement	1.201	1.487	.346	1.174	1.450	3.068	4.087	3.462	2.898	2.091		
Total	4.647	4.724	.861	2.089	6.066	9.098	15.110	8.740	11.831	10.558		
ALITAK (251)												
Harvest	1.046	.950	.189	.335	1.827	4.192	2.053	.520	.434	.728	.386	1.153
Escapement	.237	.250	.142	.236	.634	.657	.518	.467	.314	.349		
Total	1.283	1.200	.331	.591	2.461	4.849	2.571	.987	.748	1.077		
EASTSIDE AND N.W. KODIAK COMBINED (258-259)												
Harvest	2.915	6.710	1.426	1.281	4.248	3.749	2.272	.828	.398	.603	2.874	2.482
Escapement	.701	.906	.385	.430	.650	.751	.840	.589	.581	.707		
Total	3.616	7.616	1.811	1.711	4.898	4.500	3.112	1.417	.979	1.310		
MAINLAND (261)												
Harvest	.378	.284	.045	.024	.050	.237	.287	.582	.345	.806	1.744	.435
Escapement	.269	.309	.052	.076	.127	.225	.530	.525	.495	.593		
Total	.647	.593	.097	.100	177	.462	.817	1.107	.840	1.399		
MANAGEMENT AREA TOTAL												
Harvest	8.768	12.037	2.486	2.646	11.078	15.005	17.291	8.077	10.844	11.807		
Escapement	2.810	3.367	1.054	2.041	3.105	5.006	6.470	5.371	4.521	4.109		
Total	11.578	15.404	3.540	4.687	14.183	20.011	23.761	13.448	15.365	15.916		

[a] Figures in millions.

[b] Compiled by Finfish Management staff from finfish research data summaries (L.M. 8-90).

[c] Indexed total returns represent the combination of total commercial harvest in numbers of fish as recorded on fish tickets plus peak indexed escapement counts for all salmon systems aerial surveyed as well as total escapement counts for all salmon systems wth fish weirs.

Appendix G.1. Industry summary for Kodiak Management Area, 1988.

	Chinook	Sockeye	Coho	Pink	Chum	Total
Pre-season Harvest Projections	4,000	1,800,000	150,000	15,250,000	1,000,000	18,204,000
Actual Harvest	22,000	2,698,000	303,000	14,262,000	1,426,000	18,711,000
± Weight/Lbs:	13.2	5.7	8.5	3.8	8.9	-
Total Pounds	296,000	15,468,000	2,568,000	53,955,000	12,687,000	84,975,000
± $ Per Pound	$1.45	$2.71	$1.28	$.81	$1.13	-
Estimated Total Ex-Vessel Value	$429,000	41,861,000	3,284,000	43,803,000	14,373,000	103,749,000

Appendix G.2. Estimated ex-vessel salmon price per pound from the Commercial Fisheries Entry Commission for the 1988 commercial salmon fishery (in dollars).[a]

	Chinook	Sockeye	Coho	Pink	Chum
Purse Seine	1.447	2.703	1.281	0.812	1.128
Beach Seine	1.447	2.703	1.281	0.812	1.128
Set Gillnet	1.496	2.714	1.262	0.811	1.169
Hatchery	-	2.703	1.281	0,760	-
Other/Unknown	-	2.706	-	-	1.132

[a] Each year, the Commercial Fisheries Entry Commission develops ex-vessel price estimates for all fish and shellfish caught in Alaska waters for which fish ticket data exists. An annual price estimate is developed for each combination of area, species and gear type.

The primary source for these estimates is information taken from the Commercial Operators' Annual Reports which are filed with the Alaska Department of Fish and Game. These reports are required from all processors and buyers of fish or shellfish operating within Alaska. They contain only summarized data: the total pounds purchased from fishermen and the total amount paid by the processor over an entire season. These reports are to be submitted by April 1 of the year following the specified season, so that any after-season price adjustments can be included.

Because there were additional price adjustments made on some of the 1988 harvest after April 1, individual processors were contacted by telephone to either confirm or amend, the previously submitted pricing information.

Note that these price estimates reflect a weighted average annual ex-vessel price. Because ex-vessel prices typically fluctuate during a season, because ex-vessel prices vary among processors, and because there are often differences in the quality of the product delivered by individual fishermen, using these rices to estimate a given individual's gross earnings could possible either under or overestimate the individuals actual earnings by a substantial amount.

Other sources of price data include value information from the fish tickets themselves, Department of Fish and Game personnel, Hatchery Annual Reports submitted to the FRED Division, and occasionally industry journals. These sources are normally used only when ex-vessel information is not available from the Operators's reports, or when it is felt that these alternative sources are superior.

Appendix G.3. Ex-vessel salmon prices per pound and gear type in the Kodiak Management Area, 1986-1988[a].

	Chinook	Sockeye	Coho	Pink	Chum
1986					
Purse Seine	1.099	1.415	0.679	0.203	0.325
Beach Seine	1.099	1.415	0.679	0.203	0.325
Set Gillnet	1.137	1.432	0.577	0.186	0.321
Hatchery	-	-	0.441	-	-
Other/Unknown	-	-	-	-	-
1987					
Purse Seine	1.172	1.743	0.839	0.437	0.435
Beach Seine	1.172	1.743	0.835	0.437	0.435
Set Gillnet	1.266	1.734	0.825	0.423	0.391
Hatchery	-	1.646	0.441	0.284	0.178
Other/Unknown	-	2.706	-	-	1.132
1988					
Purse Seine	1.447	2.703	1.281	0.812	1.128
Beach Seine	1.447	2.703	1.281	0.812	1.128
Set Gillnet	1.496	2.714	1.262	0.811	1.169
Hatchery	-	2.703	1.281	0.760	-
Other/Unknown	-	1.706	-	-	1.132

[a] DATA SOURCE: Commercial Fisheries Entry Commission. This data represents the final price per pound data for each of the years shown.

Appendix G.4. Total salmon harvest, raw poundage by species in the Kodiak Management Area, 1965-1988.

Year[a]	Chinook	Sockeye	Coho	Pink	Chum	Total
1965	6,000	1,835,000	214,000	10,970,000	3,537,000	16,562,000
1966	8,625	3,537,218	568,680	41,946,770	5,873,298	51,934,591
1967	30,152	1,852,536	83,867	788,815	1,858,784	4,614,154
1968	29,427	4,410,279	464,358	29,811,615	6,078,467	40,794,146
1969	19,211	3,207,865	318,731	51,031,227	4,202,872	58,779,906
1970	16,690	5,484,019	528,908	43,834,219	6,552,567	56,416,403
1971	11,636	3,071,143	155,440	16,744,774	11,201,220	31,184,213
1972	15,136	1,310,843	119,827	9,075,717	9,098,580	19,620,103
1973	10,653	1,091,853	24,304	2,068,089	2,709,526	5,904,425
1974	7,588	2,611,570	114,703	11,268,189	2,118,618	16,120,668
1975	1,671	826,713	203,907	12,470,661	641,305	14,144,257
1976	13,700	4,056,252	205,030	44,639,533	6,340,353	55,254,868
1977	12,343	4,240,370	242,287	25,844,663	9,774,701	40,114,364
1978	39,190	6,865,805	416,027	55,958,003	7,270,160	70,549,185
1979	28,773	3,857,672	1,124,205	42,514,374	2,848,857	50,373,881
1980	9,381	3,517,831	1,059,349	56,976,037	8,247,528	69,810,126
1981	26,411	7,437,151	1,011,708	39,948,506	11,109,548	59,533,324
1982	15,526	7,224,752	3,135,469	28,845,208	11,074,934	50,295,889
1983	49,710	7,085,923	1,432,693	16,412,829	9,404,379	34,385,534
1984	99,350	11,015,537	2,124,621	41,625,238	5,547,475	60,412,221
1985	96,106	8,736,888	2,519,566	26,764,307	3,399,190	41,516,057
1986	66,488	18,341,178	1,458,457	42,093,765	8,390,375	70,350,263
1987	59,083	11,260,657	1,619,654	18,280,578	5,332,608	36,552,580
1988	295,699	15,471,173	2,568,484	55,004,858	12,687,443	86,027,,667

[a] Years 1965 through 1968 taken from ADF&G Catch and Production Leaflets. 1969 through present taken from ADF&G statistical runs. Includes commercial harvest by purse seine, beach seine, and set net, plus hatchery cost recovery harvest and test fishery harvest.

Appendix G.5. Historical case pack data in the Kodiak Management Area, 1948-1988[a,b].

Year	Chinook	Sockeye	Coho	Pink	Chum	Total
1948	189	98,030	4,046	303,564	93,918	499,747
1949	803	69,861	5,055	208,537	63,632	347,888
1950	408	64,463	5,786	266,694	73,846	411,197
1951	3,996	81,117	8,842	126,238	89,926	310,119
1952	1,963	89,888	4,678	281,405	141,730	519,664
1953	328	47,451	5,143	273,344	68,239	394,505
1954	682	34,643	6,597	382,779	141,682	566,383
1955	78	17,923	3,059	525,322	54,290	600,672
1956	157	29,461	4,990	156,127	62,970	253,705
1957	63	15,643	3,885	232,975	96,680	349,246
1958	95	18,803	3,304	254,320	91,704	368,226
1959	274	23,330	2,642	110,510	65,897	202,623
1960	161	27,924	5,102	281,122	100,076	414,385
1961	144	32,516	2,800	258,767	57,811	352,038
1962	114	57,886	4,168	565,770	83,913	711,851
1963	7	21,938	3,732	261,708	34,020	321,405
1964	51	32,556	2,281	500,781	119,537	655,206
1965	20	33,059	1,568	127,110	35,152	196,909
1966	48	46,753	3,893	492,896	67,462	611,052
1967	161	22,753	1,316	9,738	21,953	55,921
1968	109	58,209	3,486	339,323	76,663	477,790
1969	113	37,576	1,951	551,851	46,740	638,231
1970	46	60,362	3,625	490,297	59,555	613,886
1971	0	32,136	1,451	176,900	115,029	325,516
1972	84	23,497	2,750	101,860	91,945	220,136
1973	8	21,905	730	24,683	18,609	65,935
1974	38	46,572	587	110,066	22,252	180,430
1975	7	5,844	6,404	212,518	13,164	237,937
1976	286	97,856	4,775	461,530	71,042	635,489
1977	2	83,705	1,110	311,217	115,717	511,751
1978	192	33,796	2,300	403,782	55,315	495,385
1979	10	36,288	1,507	275,882	15,063	328,750
1980	111	129,918	4,482	655,706	68,840	859,057
1981	31	48,816	4,015	391,349	89,536	533,747
1982	530	130,925	24,155	463,079	147,833	766,522
1983	420	183,353	6,423	223,728	56,222	470,146
1984	502	105,482	9,466	576,807	40,522	732,779
1985	9	9,828	1,241	213,667	76,635	301,380
1986[c]						
1987[c]						
1988[c]						

[a] Includes imports.
[b] Expressed in number of cases of 48-1 lb. cans.
[c] Not available.

Appendix G.6. Historical salmon frozen or cured in pounds in the Kodiak Management Area, 1964-1988.

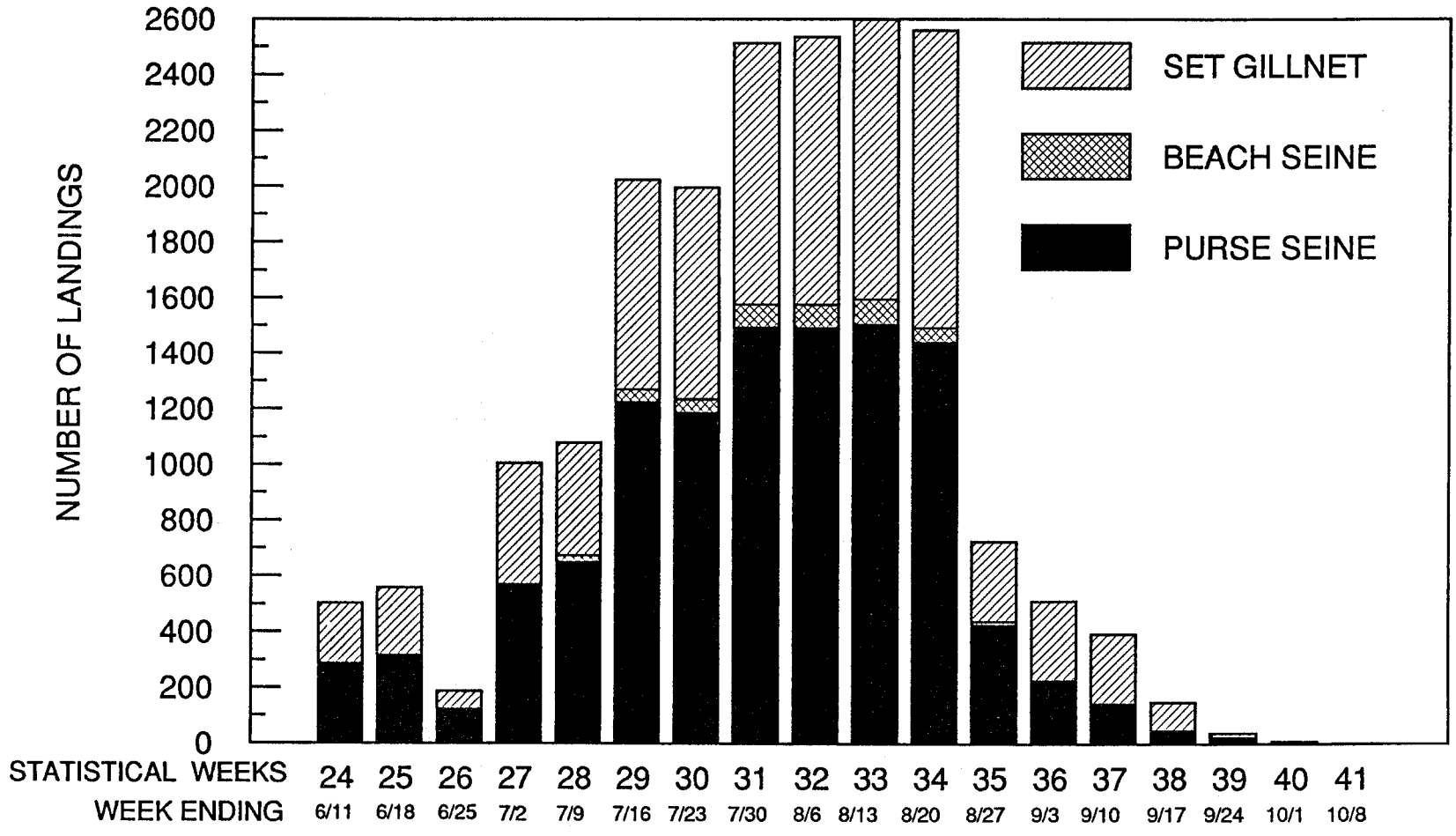
Year	Chinook	Sockeye	Coho	Pink	Chum	Total	No. of Plants Processing
1964			NONE PRIOR TO 1964				
1965	96	26,134	35,132	7,944	96,246	165,552	7
1966	2,346	131,435	66,353	961,073	540,520	2,559,905[a]	7
1967	1,993	131,275	110,255	87,316	195,482	52,321	6
1968	95	62,527	199,889	680,319	379,430	1,322,260	4
1969	0	164,965	92,984	497,986	142,555	1,021,793[a]	4
1970	2,860	241,965	122,844	1,359,197	1,055,942	2,782,808	8
1971	65	194,849	6,794	481,529	972,679	1,655,916	7
1972	175	26,211	33,258	157,457	1,033,426	1,250,527	7
1973	1,262	404,635	13,389	87,117	275,934	782,337	8
1974	135	125,199	3,962	940,063	281,986	1,351,345	6
1975	203	106,829[b]	54,263	569,442	57,523	788,260[b]	6
1976	30,203[c]	181,763	73,485	147,823	322,060	755,334	4
1977	77,906	3,784,563	100,996	484,231	575,113	5,022,809	6
1978	13,530	4,635,094	80,295	1,192,799	808,993	6,730,711	8
1979	7,861	2,343,558	631,558	3,743,287	1,044,452	7,770,716	9
1980[d]	4,949	993,146	367,735	295,938	1,303,277	2,965,045[c]	10
1981	23,591	5,186,538	308,128	1,312,504	1,843,885	8,674,646	12
1982[e]	23,104	6,898,024	775,915	2,792,553	2,780,674	13,270,270	12
1983[e]	82,288	10,346,089	910,470	2,048,531	4,115,194	17,502,572	12
1984[e]	160,396	15,864,208	1,770,686	11,458,296	3,968,441	33,222,027	12
1985[e]	101,545	8,866,669	2,431,299	5,571,493	2,077,775	19,048,781	10
1986[f]							
1987[f]							
1988[f]							

[a] Total includes cannery totals without species breakdown.
[b] An additional 77,200 pounds of red salmon were imported from Chignik.
[c] Includes 29,139 pounds kings imported and 1,064 pounds kings, 925 pounds coho and 8,944 pounds chums exported.
[d] 1980 figures are low because at least two processors did not submit Annual Processors Reports indicating how much frozen salmon product they processed.
[e] Includes salmon imported.
[f] This table is expected to appear in completed form in the 1990 Kodiak Area A.M.R.

Appendix G.7. Historical salmon landing by statistical week in the Kodiak Management Area, 1986-1988.

Statistical Week	Purse Seine			Beach Seine			Gillnet		
	1986	1987	1988	1986	1987	1988	1986	1987	1988
23	1	0	0	0	0	0	0	0	0
24	45	234	285	0	0	1	54	60	216
25	955	720	313	2	5	3	152	256	242
26	837	599	119	5	7	3	481	303	66
27	438	324	564	7	5	6	384	433	436
28	909	685	650	6	21	24	505	334	404
29	1,229	908	1,224	28	26	47	676	462	753
30	1,455	641	1,186	50	24	49	962	390	760
31	1,494	1,000	1,494	72	41	73	926	523	936
32	1,261	783	1,492	40	35	84	971	437	959
33	756	1,190	1,505	32	45	90	521	853	1,002
34	608	713	1,440	21	17	53	533	429	1,066
35	446	247	423	12	11	15	383	0	286
36	458	152	219	10	7	6	252	164	286
37	56	56	153	0	3	0	45	77	250
38	22	23	48	1	0	1	14	18	101
39	4	17	22	0	8	0	4	1	17
40	5	5	6	0	1	0	0	0	2
41	0	1	1	0	0	0	0	0	0
TOTAL	11,049	8,298	11,128	286	256	465	6,863	4,740	7,779

[a] The dates included in each statistical week of this table vary between years. The exact dates are identified in the appendix of this document in a table titled, "A Listing of Statistical Weeks".



Appendix G.8. Commercial salmon landings by statistical week in the Kodiak Management Area, 1988.

Appendix G.9. Salmon harvest by statistical area in the Kodiak Management Area, 1988.

Stat Area	# Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
251-10	298	682	30,160	13,022	424,865	17,177	485,906
251-20	432	1,032	66,399	13,819	699,998	27,570	808,818
251-30	144	71	17,373	3,521	239,843	4,257	265,065
251-40	120	52	54,196	1,645	111,203	8,521	175,617
251-50	118	176	59,851	3,136	66,599	7,444	137,206
251-60	120	112	55,375	2,351	43,953	10,988	112,779
251-70	5	0	1,507	1,441	18,697	126	21,771
251-81	-	0	2	0	250	141	393
251-82	67	23	740	6,527	145,130	868	153,288
251-90	4	0	73	208	12,527	514	13,322
Total	**1,388**	**2,159**	**286,324**	**60,008**	**1,961,321**	**77,904**	**2,387,716**
252-10	16	10	1,979	1,943	52,566	1,125	57,623
252-20	6	4	82	364	12,794	342	13,586
252-30	105	3	76	2,134	133,007	361	135,581
252-31	130	20	4,800	5,793	281,137	3,617	295,367
252-32	15	0	117	181	279,606	23	279,927
252-33	140	27	2,493	7,138	256,901	3,399	269,958
252-34	5	0	14	545	6,357	134	7,050
252-35	25	13	1,032	1,311	46,547	978	49,881
Total	**442**	**77**	**10,593**	**19,409**	**1,068,915**	**9,979**	**1,108,973**
253-11	748	606	39,887	6,093	541,917	25,370	613,873
253-12	769	240	10,388	1,109	592,045	89,636	693,418
253-13	643	190	10,996	2,820	239,739	18,139	271,884
253-14	586	560	12,071	5,059	437,716	18,342	473,748
253-31	1,607	1,887	86,775	20,335	1,262,287	59,956	1,431,240
253-32	9	1	71	10	6,879	454	7,415
253-33	285	37	2,041	740	293,762	22,019	318,599
253-35	575	111	30,642	4,087	294,522	12,902	342,264
Total	**5,222**	**3,632**	**192,871**	**40,253**	**3,668,867**	**246,818**	**4,152,441**
254-10	764	665	99,116	10,413	727,175	26,409	863,778
254-20	1,085	298	27,952	3,881	212,653	59,390	304,174
254-30	372	201	4,447	3,981	126,507	73,569	208,705
254-40	1,121	948	47,280	13,831	1,365,927	48,717	1,476,703
Total	**3,342**	**2,112**	**178,795**	**32,106**	**2,432,262**	**208,085**	**2,853,360**
255-10	13	2	1,281	90	25,190	365	26,928
255-20	105	67	11,782	164	183,789	4,782	200,584
Total	**118**	**69**	**13,063**	**254**	**208,979**	**5,147**	**227,512**

-Continued-

Stat Area	# Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
256-10	31	300	10,581	507	271	454	12,113
256-20	388	2,262	121,623	10,403	10,221	3,587	148,096
256-25	254	182	116,290	1,182	38,092	5,160	160,906
256-30	588	1,028	220,059	6,837	157,918	13,927	399,769
256-40	6	74	2,586	91	4,034	470	7,255
Total	**1,267**	**3,846**	**471,139**	**19,020**	**210,536**	**23,598**	**728,139**
257-10	16	0	4,055	78	790	5,181	10,104
257-20	1,054	527	441,010	18,036	234,104	40,274	733,951
257-30	265	0	66,775	1,225	2,983	269	71,252
257-40	720	35	184,359	3,013	34,346	17,467	239,220
257-41	1,701	51	389,420	7,259	99,746	16,239	512,715
257-50	74	3	22,480	40	3,038	1,294	26,855
257-60	57	7	9,690	315	6,978	12,233	29,223
257-70	15	1	6,084	35	3,750	444	10,314
Total	**3,902**	**624**	**1,123,873**	**30,001**	**385,735**	**93,401**	**1,633,634**
258-10	-	0	50	20	45	85	200
258-20	271	146	10,573	2,944	169,258	90,253	273,174
258-30	83	78	3,538	674	58,704	10,136	73,130
258-40	50	38	37,837	5,194	18,354	14,328	75,751
258-51	121	30	3,654	4,338	257,841	22,815	288,678
258-52	176	11	1,951	3,679	183,280	26,257	215,178
258-54	10	1	467	232	29,015	2,003	31,718
258-55	24	7	,101	1,695	77,782	3,949	85,534
258-60	15	3	275	158	18,558	1,328	20,322
258-70	178	1	1,121	238	607,072	4,539	612,971
258-80	6	0	4	46	1,300	1,187	2,537
258-90	27	0	185	431	89,588	1,403	91,607
Total	**962**	**315**	**61,756**	**19,649**	**1,510,797**	**178,283**	**1,770,800**
259-10	44	6	244	319	89,121	3,616	93,306
259-21	87	26	289	1,349	87,339	8,687	97,690
259-22	110	6	92	254	118,140	17,290	135,782
259-23	76	13	8	89	26,493	19,966	46,569
259-24	97	61	89	1,773	59,461	10,148	71,532
259-25	39	23	9	345	38,691	11,973	51,041
259-36	212	181	7,981	1,374	173,702	20,538	203,776
259-37	175	17	5,308	1,660	97,482	12,333	116,800
259-38	340	90	16,652	7,353	242,341	22,882	289,318
259-39	293	180	16,523	12,096	415,446	25,798	470,043
259-41	98	1,303	13,597	778	11,886	23,877	51,441
259-42	21	25	217	67	3,104	13,933	17,346
Total	**1,592**	**1,931**	**61,009**	**27,457**	**1,363,206**	**191,041**	**1,644,644**

-Continued-

Appendix G.9. (page 3 of 3)

Stat Area	# Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
262-10	-	34	730	5	140	393	1,302
262-15	38	99	5,630	4,269	19,242	28,235	57,475
262-20	15	21	1,214	756	4,617	10,951	17,559
262-25	62	35	1,152	368	7,672	52,717	61,944
262-27	94	15	81	245	16,131	84,652	101,124
262-30	13	58	5,501	15	2,087	945	8,606
262-35	20	71	3,193	601	19,236	5,174	28,275
242-40	8	93	1,639	87	12,609	832	15,260
262-45	99	1,446	71,231	1,741	19,494	25,847	119,759
262-50	177	3,206	109,279	2,863	47,882	35,025	198,255
262-55	92	1,066	36,175	534	97,882	15,716	151,373
262-60	9	115	7,395	19	731	3,120	11,380
262-65	90	271	19,815	605	95,124	34,460	150,275
262-70	23	16	1,378	316	58,285	12,608	72,603
262-75	108	199	6,798	10,813	307,987	17,501	343,298
262-80	193	775	23,191	28,280	494,321	28,520	575,087
262-85	95	6	381	689	503,586	26,367	531,029
262-90	3	0	12	44	5,220	83	5,359
262-95	21	76	4,219	2,514	36,174	9,008	51,991
Total	**1,162**	**7,602**	**299,014**	**54,764**	**1,748,420**	**392,154**	**2,501,954**
GRAND TOTAL	**19,397**	**22,367**	**2,698,437**	**302,921**	**14,559,038**	**1,426,410**	**19,009,173**

Appendix G.10. Catch by day by all gear combined in the Kodiak Management Area, 1988.

DATE	PERMITS	LNDGS	Chinook		Sockeye		Coho		Pink		Chum		Total	
			#	LBS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS
06/01	*	*	0	0	40	195	0	0	0	0	0	0	40	195
06/03	*	*	0	0	15	74	0	0	0	0	0	0	15	74
06/04	*	*	0	0	17	86	0	0	0	0	0	0	17	86
06/07	*	*	0	0	4	21	0	0	13	59	23	235	40	315
06/09	159	160	398	5,167	37,334	181,046	13	80	298	1,009	855	7,385	38,898	194,687
06/10	263	313	1,412	21,044	82,182	398,361	55	384	57	173	2,676	24,516	86,382	444,478
06/11	29	30	278	3,022	6,878	33,358	1	4	10	24	245	2,209	7,412	38,617
06/12	*	*	0	0	40	183	0	0	0	0	1	15	41	198
06/14	184	190	476	8,979	31,225	148,437	2	25	34	121	1,492	13,108	33,229	170,670
06/15	292	344	1,339	24,668	75,359	353,686	6	48	112	343	4,590	42,069	81,406	420,814
06/16	22	23	110	2,134	11,117	50,967	0	0	38	101	366	3,486	11,631	56,688
06/17	*	*	4	89	348	1,593	0	0	0	0	1	7	353	1,689
06/18	*	*	0	0	25	107	0	0	0	0	0	0	25	107
06/20	*	*	0	0	63	289	0	0	0	0	0	0	63	289
06/21	*	*	0	0	33	150	0	0	0	0	2	19	35	169
06/22	*	*	0	0	81	361	0	0	0	0	1	7	82	368
06/24	*	*	0	0	80	377	0	0	0	0	4	38	84	415
06/25	179	187	385	3,037	18,328	90,266	7	44	1,826	6,675	10,917	102,196	31,463	202,218
06/26	282	339	516	6,564	58,648	287,611	11	72	3,229	12,367	16,643	155,504	79,047	462,118
06/27	285	325	430	5,854	60,124	294,805	19	127	2,945	10,439	15,674	149,506	79,192	460,731
06/28	275	324	250	3,255	49,493	241,542	26	186	3,739	12,515	16,714	159,836	70,222	417,334
06/29	11	13	162	1,218	5,382	26,361	3	16	726	2,319	2,870	26,840	9,143	56,754
06/30	*	*	0	0	5	24	0	0	0	0	1	10	6	34
07/01	*	*	0	0	7	43	2	17	838	3,008	42	349	889	3,417
07/02	*	*	0	0	267	1,535	16	135	1,290	5,104	74	555	1,647	7,329
07/03	*	*	1	25	0	0	0	0	13	36	191	2,007	205	2,068
07/04	*	*	0	0	1,258	8,489	0	0	1,272	4,526	101	1,512	2,631	14,527
07/05	*	*	1	5	0	0	1	8	129	480	10	85	141	578
07/06	250	257	139	2,340	53,546	272,671	27	182	17,687	69,292	35,965	341,446	107,364	685,931
07/07	307	353	310	3,978	64,989	334,457	51	396	27,082	106,590	44,281	421,934	136,713	867,355
07/08	350	411	457	6,313	73,746	445,228	166	1,164	35,971	139,748	42,195	393,054	152,535	985,507
07/09	48	51	402	4,419	37,293	237,115	65	413	7,485	28,667	17,822	164,842	63,067	435,456
07/11	296	305	559	5,457	80,045	524,178	219	1,551	39,028	147,772	27,138	247,493	146,989	926,451
07/12	361	442	2,089	15,691	122,751	814,636	809	5,734	72,551	270,269	41,506	377,272	239,706	1,483,602
07/13	334	379	1,897	15,630	132,196	910,602	1,801	12,284	64,680	242,326	34,611	304,342	235,185	1,485,184
07/14	337	397	482	6,453	109,390	744,972	3,444	24,000	68,358	254,806	28,280	248,392	209,954	1,278,623
07/15	362	446	460	6,881	140,720	967,013	1,618	11,135	99,218	374,598	30,394	266,831	272,410	1,626,458
07/16	52	55	189	2,659	48,476	353,488	478	3,693	20,433	75,483	8,719	76,973	78,295	512,296
07/17	*	*	4	103	786	5,164	2	19	165	553	30	324	987	6,163
07/18	251	261	148	2,164	48,181	309,115	726	5,382	63,469	240,938	15,037	135,516	127,561	693,115
07/19	362	435	342	4,571	115,143	747,766	2,216	16,318	156,880	590,350	36,128	331,912	310,709	1,690,917
07/20	362	417	456	5,856	81,020	509,527	3,491	26,266	200,965	739,095	37,480	331,747	323,412	1,612,491
07/21	353	421	318	4,984	53,518	330,192	3,575	26,246	216,620	792,767	33,716	303,698	307,747	1,457,887
07/22	373	432	521	7,432	51,896	331,908	1,898	14,668	213,999	789,565	42,453	385,623	310,767	1,529,196
07/23	28	28	56	1,032	5,797	39,862	1,031	6,051	31,817	121,336	4,606	39,819	43,307	208,100
07/24	25	26	85	1,114	5,354	32,471	1,594	10,883	28,571	106,518	5,670	49,613	41,274	200,599
07/25	327	360	748	6,400	54,256	313,666	3,503	25,770	300,779	1,151,151	28,828	256,453	388,114	1,753,440
07/26	370	455	1,001	11,422	68,711	386,093	5,552	40,848	459,432	1,717,189	58,975	494,841	593,671	2,650,393

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Appendix G.10. (page 2 of 3)

DATE	PERMITS	LNDGS	Chinook		Sockeye		Coho		Pink		Chum		Total	
			#	LBS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS
07/27	368	464	710	8,310	50,690	293,092	5,630	42,790	443,326	1,654,983	43,502	380,941	543,858	2,380,116
07/28	324	370	243	4,257	40,564	217,412	4,222	33,664	416,904	1,522,964	29,414	256,562	491,347	2,034,859
07/29	363	427	637	10,743	27,282	141,408	4,512	35,490	456,548	1,692,964	42,114	374,297	531,093	2,254,902
07/30	367	413	314	5,730	22,504	116,940	7,254	43,511	446,385	1,644,646	21,622	190,642	498,079	2,001,469
07/31	342	386	308	4,291	19,749	103,037	4,014	31,707	373,561	1,373,164	20,217	177,644	417,849	1,689,843
08/01	338	377	237	4,229	38,308	191,842	2,670	20,984	498,004	1,810,272	33,625	301,447	572,844	2,328,774
08/02	367	439	502	7,524	28,016	141,011	5,121	40,226	610,753	2,255,505	57,525	519,350	701,917	2,963,616
08/03	362	432	323	6,231	40,776	193,755	3,305	27,464	582,645	2,194,869	48,105	452,146	675,154	2,874,465
08/04	351	424	397	7,355	30,974	159,795	3,658	30,308	629,749	2,329,523	38,614	344,370	703,392	2,871,351
08/05	390	450	448	6,549	40,218	199,901	5,844	49,700	622,961	2,347,670	38,152	340,626	707,623	2,944,446
08/06	31	33	21	409	1,820	9,734	659	5,403	88,634	327,869	2,373	21,073	93,507	364,488
08/07	*	*	0	0	0	0	0	0	27,169	99,142	103	938	27,272	100,080
08/08	319	351	63	1,353	18,398	96,477	3,504	28,864	432,782	1,668,390	40,502	362,993	495,249	2,158,077
08/09	386	477	302	5,413	33,921	176,813	8,759	70,901	824,588	3,148,412	48,070	419,101	915,640	3,820,640
08/10	388	472	213	4,007	34,570	176,145	13,332	109,049	851,839	3,260,430	38,879	349,096	938,833	3,898,727
08/11	361	430	227	3,282	38,809	194,042	9,247	79,025	623,721	2,379,607	27,838	238,903	699,842	2,894,859
08/12	331	416	193	2,472	22,642	120,693	10,079	79,615	675,060	2,571,340	22,171	187,965	730,145	2,962,085
08/13	386	453	170	2,874	26,081	137,995	14,102	118,836	684,288	2,626,201	23,207	198,679	747,848	3,084,585
08/14	354	416	122	1,861	28,834	150,875	14,085	117,475	520,426	2,005,358	15,239	129,966	578,706	2,405,535
08/15	359	426	107	1,949	43,425	228,283	13,130	112,061	609,922	2,314,066	30,337	264,156	696,921	2,920,515
08/16	316	372	51	841	29,046	143,734	11,163	96,705	373,446	1,430,794	16,233	135,927	429,939	1,808,001
08/17	289	331	52	1,023	30,715	158,222	11,711	102,961	344,417	1,327,539	13,505	111,316	400,400	1,701,061
08/18	331	374	83	1,404	24,601	124,973	23,058	197,084	373,407	1,437,785	17,521	148,562	438,670	1,909,808
08/19	303	331	52	852	24,279	122,103	11,125	101,954	219,012	854,530	11,169	91,971	265,637	1,171,410
08/20	265	308	35	562	24,439	121,185	9,160	83,538	195,394	753,318	12,517	105,155	241,545	1,063,758
08/21	13	13	4	57	125	690	1,134	8,994	28,960	111,460	658	5,723	30,881	126,924
08/22	*	*	0	0	1	4	5	45	262	1,079	863	7,194	1,131	8,322
08/23	234	248	16	266	19,082	103,115	6,699	61,495	189,566	768,865	30,314	248,959	245,677	1,182,700
08/24	256	281	43	773	18,429	98,961	10,723	91,963	115,900	463,327	37,678	322,553	182,773	977,577
08/25	148	163	5	55	13,479	64,834	3,781	34,573	56,499	219,034	7,379	63,771	81,143	382,267
08/26	13	15	1	25	98	654	962	9,344	13,703	52,243	1,443	9,944	16,207	72,210
08/27	*	*	0	0	75	562	28	275	54	236	12	109	169	1,182
08/29	*	*	0	0	20	70	340	3,566	9,173	34,852	0	0	9,533	38,488
08/30	104	109	3	85	13,834	75,532	4,763	47,645	12,905	49,523	1,278	10,185	32,783	182,970
08/31	133	147	19	302	21,444	114,133	7,291	70,328	27,123	106,558	1,328	10,187	57,205	301,508
09/01	110	131	26	303	17,217	94,229	7,237	70,904	18,988	74,143	748	5,612	44,216	245,191
09/02	52	71	0	0	7,955	43,037	2,966	26,753	4,424	17,629	489	3,286	15,834	90,705
09/03	40	51	0	0	8,925	45,939	3,160	30,952	1,351	5,895	509	3,341	13,945	86,127
09/04	40	48	0	0	9,153	47,261	2,993	30,917	857	3,396	268	2,012	13,271	83,586
09/05	37	45	0	0	7,223	37,716	1,601	15,237	628	2,421	791	5,981	10,243	61,355
09/06	62	73	0	0	12,326	63,824	3,182	29,413	1,542	5,885	542	3,956	17,592	103,078
09/07	80	88	7	100	11,992	65,467	3,983	37,986	2,141	7,949	342	2,425	18,465	113,927
09/08	71	77	6	110	8,256	45,074	2,934	29,024	4,724	17,345	443	3,106	16,363	94,659
09/09	33	35	3	52	3,420	18,864	482	4,595	1,137	4,360	141	964	5,183	28,835
09/10	26	27	3	29	2,199	11,839	669	6,039	914	3,487	825	7,218	4,610	28,612
09/11	30	31	1	12	2,615	15,055	969	9,514	641	2,423	51	354	4,277	27,358
09/12	31	33	1	27	3,166	17,743	1,108	10,843	201	764	116	990	4,592	30,367
09/13	24	25	1	22	2,234	12,296	668	6,500	140	506	42	268	3,085	19,592

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DATE	PERMITS	LNDGS	Chinook		Sockeye		Coho		Pink		Chum		Total	
			#	LBS	#	LBS	#	LBS	#	LBS	#	LBS	#	LBS
09/14	19	25	0	0	2,954	16,158	386	3,869	133	492	143	937	3,616	21,456
09/15	15	16	0	0	907	4,617	416	4,195	34	114	71	535	1,428	9,461
09/16	12	14	0	0	1,677	8,580	215	2,012	279	1,001	35	244	2,206	11,837
09/17	6	6	0	0	615	3,539	179	1,689	46	167	5	31	845	5,426
09/18	9	9	0	0	473	2,535	399	4,316	6	22	3	21	881	6,894
09/19	*	*	0	0	0	0	142	1,670	0	0	0	0	142	1,670
09/20	8	11	0	0	416	2,253	589	6,278	3	13	2	16	1,010	8,560
09/21	6	9	0	0	486	2,666	165	1,656	4	16	4	29	659	4,367
09/22	4	4	0	0	131	715	41	439	0	0	0	0	172	1,154
09/23	4	4	0	0	84	475	313	2,870	0	0	1	7	398	3,352
09/25	*	*	0	0	58	301	131	1,151	0	0	0	0	189	1,452
09/27	*	*	0	0	0	0	199	1,874	0	0	0	0	199	1,874
09/29	*	*	0	0	740	2,877	465	4,193	0	0	5	40	1,210	7,110
09/30	*	*	0	0	0	0	188	1,763	0	0	0	0	188	1,763
10/08	*	*	0	0	0	0	20	150	0	0	0	0	20	150
GRAND TOTAL	525	19,402	22,374	295,699	2,698,637	15,471,173	303,298	2,568,494	14,559,038	55,004,858	1,426,410	12,687,443	19,009,757	86,027,667

*DUE TO CONFIDENTIALITY RULES THIS INFORMATION MAY NOT BE RELEASED.

Appendix G.11. Salmon harvest by gear[a] with all areas combined, Kodiak Management Area 1969-1988.

YEAR	GEAR TYPE	Chinook Number	Chinook %	Sockeye Number	Sockeye %	Coho Number	Coho %	Pink Number	Pink %	Chum Number	Chum %	TOTAL Number	TOTAL %
1969	01	2,354	.95	397,572	.67	47,071	.97	11,994,626	.96	511,551	.96	12,953,174	.95
	02	53	.02	8,173	.02	182	.01	20,913	.01	299	.01	29,620	.01
	04	62	.03	185,736	.31	1,506	.03	485,284	.04	23,083	.04	695,671	.05
	TOTAL	2,469	1.00	591,481	1.00	48,759	1.00	1,500,823	1.00	534,933	1.00	13,678,465	1.00
1970	01	1,003	.92	781,054	.85	59,722	.90	11,176,353	.93	860,771	.94	12,878,903	.92
	02	49	.05	7,661	.01	970	.01	127,259	.01	3,500	.01	139,439	.01
	04	37	.03	128,330	.14	5,729	.09	741,937	.06	54,831	.06	930,864	.07
	TOTAL	1,089	1.00	917,045	1.00	66,421	1.00	12,045,549	1.00	919,102	1.00	13,949,206	1.00
1971	01	837	.91	366,739	.76	19,140	.84	4,010,855	.84	1,471,637	.96	4,869.208	.92
	02	1	.01	1,136	.01	133	.01	63,675	.01	5,972	.01	70,917	.01
	04	82	.09	110,604	.23	3,571	.16	259,962	.06	63,835	.04	438,054	.07
	TOTAL	920	1.00	478,479	1.00	22,844	1.00	4,334,492	1.00	1,541,444	1.00	6,378,179	1.00
1972	01	1,232	.95	175,484	.79	14,017	.85	2,273,852	.92	1,084,685	.93	3,549,270	.91
	02	3	.01	2,325	.01	53	.01	31,800	.01	6,657	.01	40,838	.01
	04	65	.01	44,991	.20	2,518	.15	173,085	.07	72,430	.06	293,089	.08
	TOTAL	1,300	1.00	222,800	1.00	16,588	1.00	2,478,737	1.00	1,163,772	1.00	3,883,197	1.00
1973	01	780	.98	139,017	.83	3,171	.89	431,749	.85	303,694	.96	878,411	.88
	02	2	.01	476	.01	6	.01	7,190	.01	907	.01	8,581	.01
	04	18	.02	27,848	.17	396	.11	72,769	.14	13,320	.04	114,351	.11
	TOTAL	800	1.00	167,341	1.00	3,573	1.00	511,708	1.00	317,921	1.00	1,001,343	1.00
1974	01	405	.74	346,237	.83	12,664	.93	2,395,212	.91	235,248	.94	2,989,766	.90
	02	1	.01	2,200	.01	9	.01	32,302	.01	632	.01	35,144	.01
	04	139	.26	70,324	.17	958	.07	219,682	.08	13,414	.05	304,517	.09
	TOTAL	545	1.00	418,761	1.00	13,631	1.00	2,647,196	1.00	249,294	1.00	3,329,427	1.00
1975	01	89	.88	75,041	.55	18,547	.78	2,663,539	.91	73,109	.87	2,830,325	.89
	02	2	.02	749	.01	4,269	.18	34,842	.01	280	.01	40,142	.01
	04	10	.10	60,628	.44	843	.04	244,420	.08	11,042	.13	316,943	.10
	TOTAL	101	1.00	136,418	1.00	23,659	1.00	2,942,801	1.00	84,431	1.00	3,187,410	1.00

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YEAR	GEAR TYPE	Chinook Number	Chinook %	Sockeye Number	Sockeye %	Coho Number	Coho %	Pink Number	Pink %	Chum Number	Chum %	TOTAL Number	TOTAL %
1976	01	704	.92	484,912	.76	16,716	.71	9,712,179	.88	706,773	.95	10,921,284	.88
	02	8	.01	1,721	.01	3,859	.16	149,371	.01	3,479	.01	158,438	.01
	04	54	.07	154,851	.24	3,139	.13	1,216,442	.11	30,243	.04	1,404,729	.11
	TOTAL	766	1.00	641,484	1.00	23,714	1.00	11,077,992	1.00	740,495	1.00	12,484,451	1.00
1977	01	528	.90	409,016	.66	19,115	.69	5,245,137	.84	1,023,513	.95	6,697,309	.84
	02	3	.01	1,279	.01	5,995	.21	126,827	.02	10,017	.01	144,121	.02
	04	54	.09	213,173	.34	2,810	.10	880,441	.14	38,783	.04	1,135,261	.14
	TOTAL	585	1.00	623,468	1.00	27,920	1.00	6,252,405	1.00	1,072,313	1.00	7,976,691	1.00
1978	01	2,625	.81	803,608	.75	35,443	.73	13,259,413	.88	754,933	.93	14,856,022	.87
	02	38	.01	7,418	.01	9,513	.20	224,209	.02	9,467	.01	250,645	.02
	04	565	.18	260,756	.24	3,839	.07	1,520,443	.10	49,945	.06	1,835,548	.11
	TOTAL	3,228	1.00	1,071,782	1.00	48,795	1.00	15,004,065	1.00	814,345	1.00	16,942,215	1.00
1979	01	1,708	.90	355,513	.56	102,184	.73	9,995,862	.89	319,109	.89	10,774,376	.87
	02	13	.01	7,407	.01	12,821	.09	279,661	.02	4,183	.01	304,085	.02
	04	184	.09	268,815	.43	25,624	.18	1,012,068	.09	35,108	.09	1,341,799	.11
	TOTAL	1,905	1.00	631,735	1.00	140,629	1.00	11,287,591	1.00	358,400	1.00	12,420,260	1.00
1980	01	266	.50	385,999	.59	113,027	.82	15,346,820	.89	987,685	.92	16,833,797	.87
	02	6	.01	4,086	.01	13,058	.09	535,559	.03	23,679	.02	576,388	.03
	04	257	.49	261,309	.40	13,069	.09	1,408,236	.08	64,193	.06	1,747,064	.10
	TOTAL	529	1.00	651,394	1.00	139,154	1.00	17,290,615	1.00	1,075,557	1.00	19,157,249	1.00
1981	01	1,150	.81	847,281	.66	93,514	.77	8,330,252	.81	1,212,509	.90	10,484,706	.80
	02	23	.02	6,768	.01	12,713	.10	385,524	.04	11,091	.01	416,119	.03
	04	245	.17	434,931	.33	15,317	.13	1,621,053	.15	121,728	.09	2,193,274	.17
	TOTAL	1,418	1.00	1,288,980	1.00	121,544	1.00	10,336,829	1.00	1,345,328	1.00	13,094,099	1.00
1982	01	919	.74	588,355	.49	290,565	.85	6,595,164	.82	1,080,175	.85	8,555,178	.79
	02	7	.01	9,142	.01	18,711	.05	169,082	.02	17,666	.02	214,608	.02
	04	312	.25	607,296	.50	34,255	.10	1,311,957	.16	168,346	.13	2,122,166	.19
	TOTAL	1,238	1.00	1,204,793	1.00	343,531	1.00	8,076,203	1.00	1,266,187	1.00	10,891,952	1.00

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YEAR	GEAR TYPE	Chinook Number	Chinook %	Sockeye Number	Sockeye %	Coho Number	Coho %	Pink Number	Pink %	Chum Number	Chum %	TOTAL Number	TOTAL %
1983	01	3,096	.80	782,719	.63	128,655	.81	3,887,6781	.84	964,581	.89	5,766,722	.81
	02	22	.01	3,929	.01	4,306	.03	125,629	.03	7,267	.01	141,153	.02
	04	721	.19	445,341	.36	24,651	.16	590,071	.13	113,317	.10	1,174,101	.17
	TOTAL	3,839	1.00	1,231,989	1.00	157,612	1.00	4,603,371	1.00	1,085,165	1.00	7,081,976	1.00
1984	01	3,926	.84	1,507,840	.77	198,665	.87	9,230,010	.85	563,659	.87	11,504,100	.84
	02	32	.01	8,524	.01	6,836	.03	186,459	.02	10,931	.02	212,782	.02
	04	699	.15	434,075	.22	24,023	.10	1,427,824	.13	74,502	.11	1,961,123	.14
	TOTAL	4,657	1.00	1,950,439	1.00	229,524	1.00	10,844,293	1.00	649,092	1.00	13,678,005	1.00
1985	01	4,528	.91	1,195,010	.64	245,987	.86	6,407,842	.87	336,077	.78	8,189,444	.83
	02	23	.01	3,762	.01	4,317	.02	137,018	.02	2,590	.01	147,710	.01
	04	419	.08	644,413	.35	33,862	.12	789,965	.11	92,090	.21	1,560,749	.16
	TOTAL	4,970	1.00	1,843,185	1.00	284,166	1.00	7,334,825	1.00	430,757	1.00	9,897,903	1.00
1986	01	4,042	.92	2,010,828	.63	134,509	.80	9,580,094	.82	972,383	.85	12,701,856	.78
	02	21	.01	1,989		1,744	.01	172,986	.01	5,673	.01	182,413	.01
	04	318	.07	1,175,452	.37	32,420	.19	2,055,195	.17	156,502	.14	3,419,887	.21
	TOTAL	4,381	1.00	3,188269	1.00	168,773	1.00	11,808,275	1.00	1,134,558	1.00	16,304,165	.1.00
1987[b]	01	4,379	.95	1,248,368	.70	160,403	.83	4,228,900	.83	542,009	.79	6,184,019	.80
	02	4		1,582		3,703	.02	135,638	.03	9,462	.01	150,389	.02
	04	229	.05	542,360	.30	28,327	.15	555,753	.11	129,482	.19	1,256,151	.16
	TOTAL	4,612	1.00	1,792,819	1.00	192,540	1.00	5,075,027	1.00	681,982	1.00	7,746,980	1.00
1988[b]	01	21,167	.95	1,839,153	.68	266,446	.88	11,948,730	.82	1,220,405	.85	15,295,901	.80
	02	75	<.01	2,075	<.01	860	<.01	234,258	.02	21,805	.02	259,073	.01
	04	1,132	.05	856,744	.32	35,961	.12	2,079,367	.14	184,190	.13	3,157,394	.17
	99	0		66	<.01	31	<.01	296,683	.02	0		296,780	.02
	TOTAL	22,374	1.00	2,698,637	1.00	303,298	1.00	14,559,038	1.00	1,426,410	1.00	19,009,757	1.00

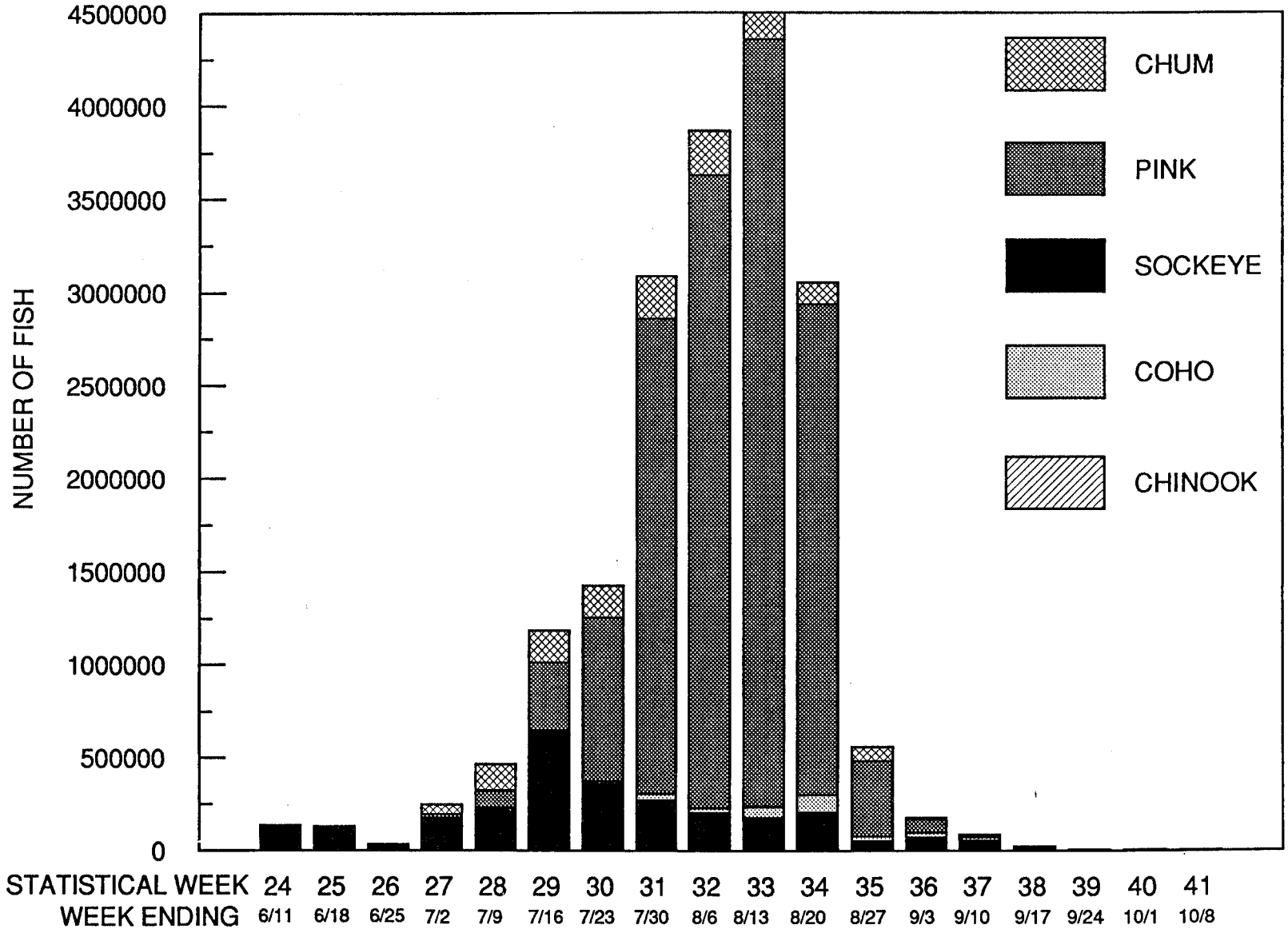
[a] Gear Description: 01-purse seine, 02-beach seine, 04-set gillnet, 99-see footnote 2.
[b] Total figures include harvests at Kitoi Bay hatchery for Cost Recovery purposes, fish caught in test fisheries and forfeitures due to illegal fishing (approximately 2% of the total harvest).

Appendix G.12. Projected vs Actual harvest by species in the Kodiak Management Area, 1983-1988.

Year	Chinook		Sockeye		Coho		Pink		Chum		Total	
	Proj.	Act.	Proj.	Act.	Proj.	Act.	Proj.	Act.	Proj.	Act.	Proj.	Act.
1983	1,500	3,839	1,000,000	1,232,000	150,000	157,600	12,000,000	4,603,400	1,100,000	1,085,200	14,251,500	7,082,000
1984	2,000	4,660	1,500,000	1,950,400	150,000	228,999	7,500,000	10,841,000	1,000,000	648,600	10,152,000	13,673,200
1985	4,000	4,970	1,300,000	1,842,800	125,000	283,000	4,640,000	7,334,800	750,000	430,700	6,809,000	9,896,500
1986	4,000	4,400	1,500,000	3,190,000	200,000	167,000	15,680,000	11,800,000	1,000,000	1,130,000	18,384,000	16,291,000
1987	3,000	4,600	1,500,000	1,790,000	125,000	192,000	5,800,000	5,070,000	900,000	582,000	8,328,000	7,738,600
1988	4,000	22,000	1,800,000	2,698,000	150,000	303,000	15,250,000	14,262,000	1,000,000	1,426,000	18,204,000	18,711,000

Appendix G.13. Salmon harvest by all gear types by statistical week in the Kodiak Management Area, 1988.

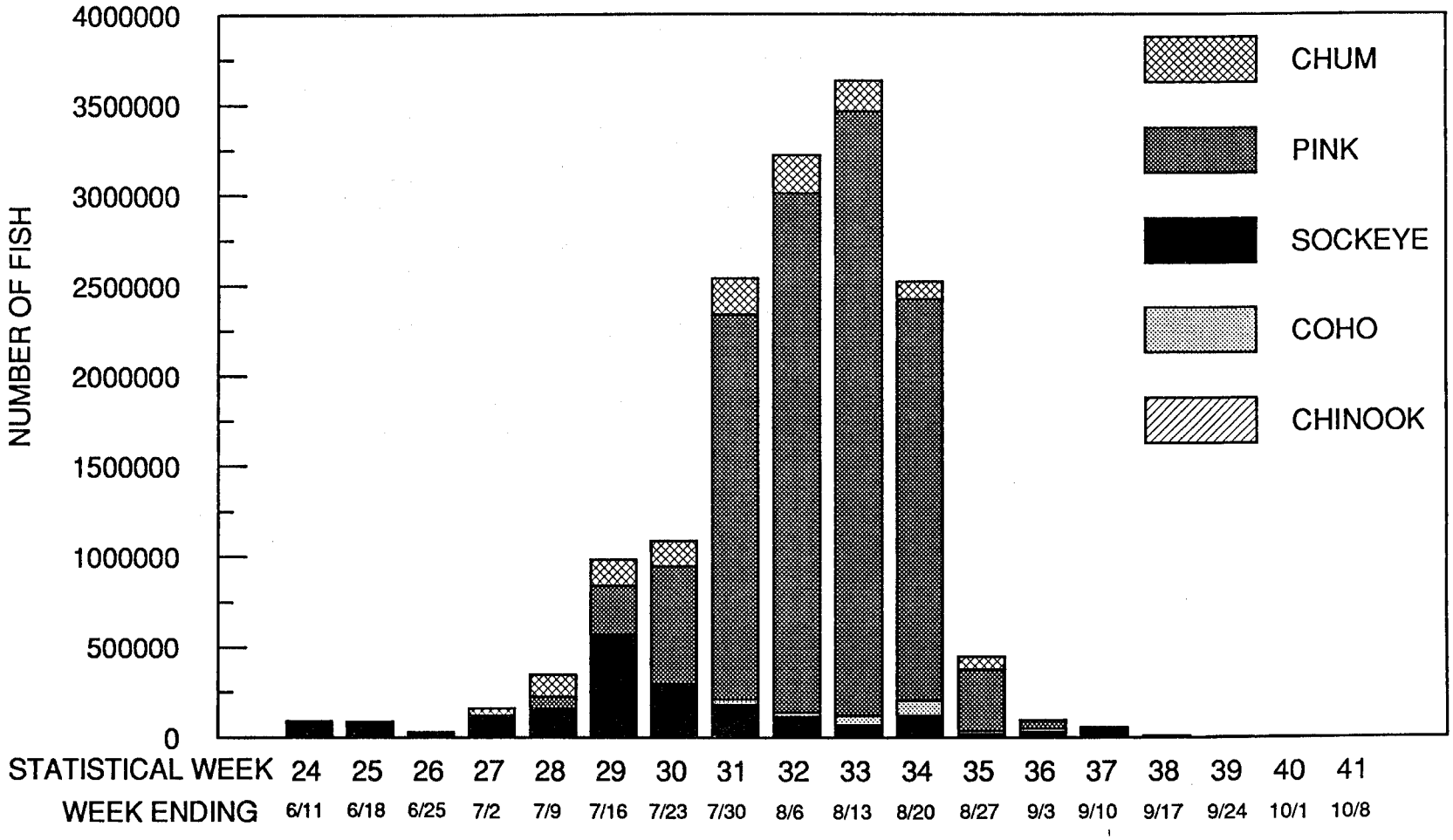
GEAR	STAT WEEK	WEEK END	Chinook			Sockeye			Coho			Pink			Chum		
			#	LBS	AVG.	#	LBS	AVG.	#	LBS	AVG.	#	LBS	AVG.	#	LBS	AVG.
ALL GEAR	23	06/04	0	0	0.0	72	355	4.9	0	0	0.0	0	0	0.0	0	0	0.0
	24	06/11	2,088	29,233	14.0	126,398	612,786	4.8	69	468	6.8	378	1,265	3.3	3,799	34,345	9.0
	25	06/18	1,929	35,870	18.6	118,114	554,973	4.7	8	73	9.1	184	565	3.1	6,450	58,685	9.1
	26	06/25	385	3,037	7.9	18,585	91,443	4.9	7	44	6.3	1,826	6,675	3.7	10,924	102,260	9.4
	27	07/02	1,358	16,891	12.4	173,926	851,921	4.9	140	1,130	8.1	19,322	68,924	3.6	52,122	493,342	9.5
	28	07/09	1,310	17,080	13.0	230,832	1,297,960	5.6	310	2,163	7.0	89,639	349,339	3.9	140,565	1,324,880	9.4
	29	07/16	5,676	52,771	9.3	633,578	4,314,889	6.8	8,369	58,397	7.0	364,268	1,365,254	3.7	170,648	1,521,303	8.9
	30	07/23	1,845	26,142	14.2	356,341	2,273,534	6.4	12,939	94,950	7.3	883,915	3,274,604	3.7	169,450	1,528,639	9.0
	31	07/30	3,738	47,976	12.8	269,359	1,501,072	5.6	32,264	232,929	7.2	2,551,050	9,487,280	3.7	230,096	2,003,111	8.7
	32	08/06	2,236	36,588	16.4	199,861	999,075	5.0	25,221	205,337	8.1	3,400,636	12,619,191	3.7	238,511	2,155,936	9.0
	33	08/13	1,168	19,401	16.6	174,421	902,165	5.2	59,021	486,270	8.2	4,119,405	15,753,359	3.8	200,767	1,757,651	8.8
	34	08/20	502	8,492	16.9	205,339	1,049,375	5.1	93,421	811,676	8.7	2,635,034	10,119,522	3.8	116,509	986,953	8.5
	35	08/27	69	1,176	17.0	51,289	268,820	5.2	23,332	206,689	8.9	404,759	1,615,569	4.0	78,339	658,172	8.4
	36	09/03	48	690	14.4	69,397	372,950	5.4	25,760	250,175	9.7	74,857	291,727	3.9	4,380	32,840	7.5
	37	09/10	19	291	15.3	54,569	290,045	5.3	15,844	153,211	9.7	11,943	44,843	3.8	3,352	25,662	7.7
	38	09/17	3	61	20.3	14,168	77,988	5.5	3,941	38,622	9.8	1,474	5,467	3.7	463	3,359	7.3
	39	09/24	0	0	0.0	1,590	8,644	5.4	1,649	17,229	10.4	161	591	3.7	21	175	8.3
	40	10/01	0	0	0.0	798	3,178	4.0	983	8,981	9.1	187	683	3.7	14	130	9.3
	41	10/08	0	0	0.0	0	0	0.0	20	150	7.5	0	0	0.0	0	0	0.0
TOTAL			22,374	295,699	13.2	2,698,637	15,471,173	5.7	303,298	2,568,494	8.5	14,559,038	55,004,858	3.8	1,426,410	12,687,443	8.9



Appendix G.14. Commercial salmon harvest by specie by statistical week in the Kodiak Management Area, 1988.

Appendix G.15. Salmon harvest by purse seine by statistical week in the Kodiak Management Area, 1988.

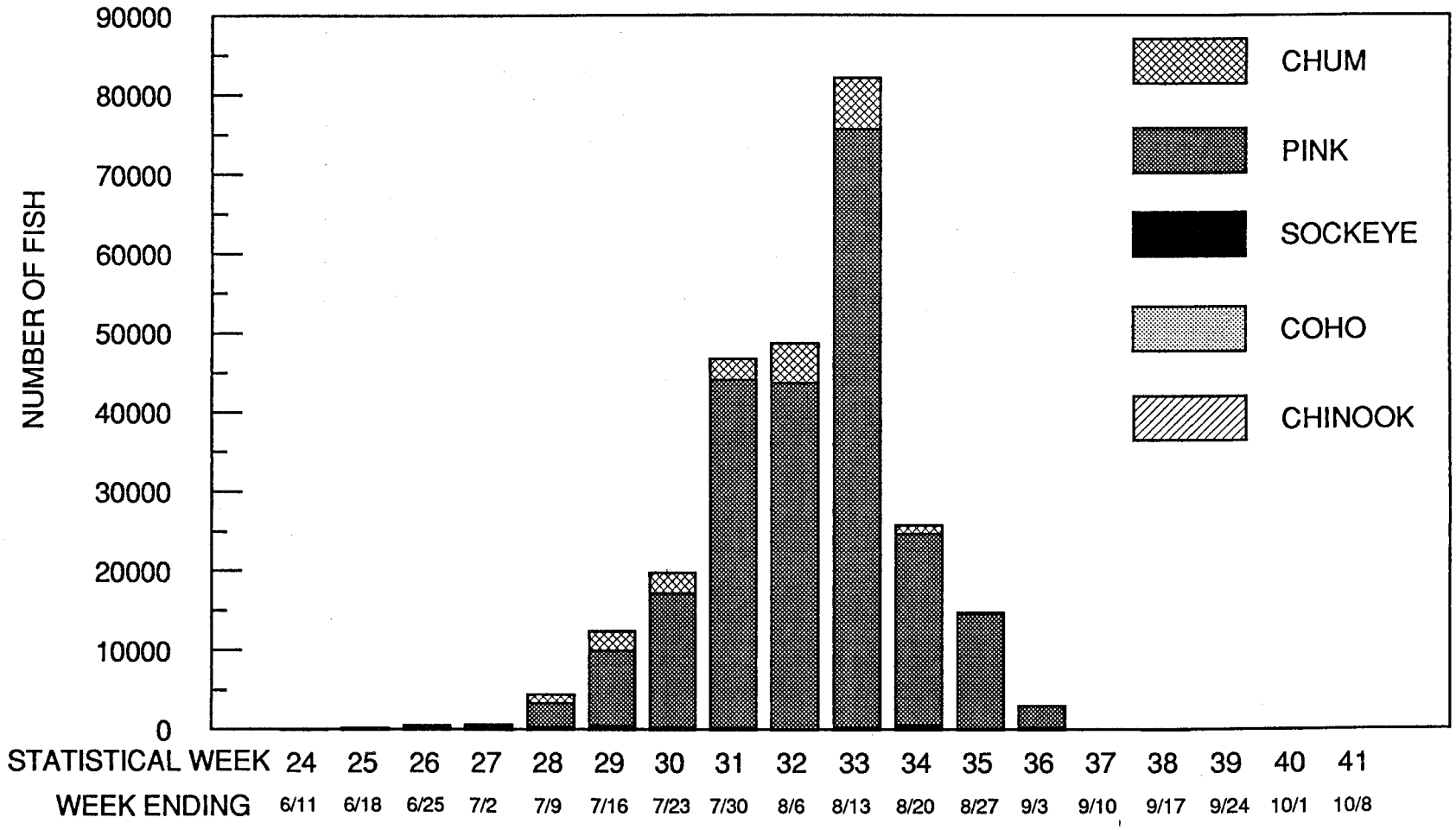
GEAR	STAT WEEK	WEEK END	Chinook #	Chinook LBS	Chinook AVG.	Sockeye #	Sockeye LBS	Sockeye AVG.	Coho #	Coho LBS	Coho AVG.	Pink #	Pink LBS	Pink AVG.	Chum #	Chum LBS	Chum AVG.
PURSE SEINE	24	06/11	1,944	26,995	13.9	83,574	402,224	4.8	18	123	6.8	358	1,193	3.3	2,813	25,887	9.2
	25	06/18	1,856	34,712	18.7	79,224	365,587	4.6	2	22	11.0	136	389	2.9	4,160	39,026	9.4
	26	06/25	365	2,834	7.8	14,519	69,544	4.8	5	33	6.6	1,341	4,706	3.5	9,091	86,866	9.6
	27	07/02	1,241	15,111	12.2	102,131	492,460	4.8	95	782	8.2	14,844	51,512	3.5	41,343	401,002	9.7
	28	07/09	1,264	16,120	12.8	159,513	949,686	6.0	238	1,657	7.0	62,826	243,127	3.9	122,932	1,175,906	9.6
	29	07/16	5,540	50,102	9.0	556,787	3,863,057	6.9	8,068	56,243	7.0	268,892	984,657	3.7	143,321	1,288,585	9.0
	30	07/23	1,681	23,394	13.9	283,945	1,847,003	6.5	11,857	86,631	7.3	649,802	2,355,502	3.6	140,949	1,290,082	9.2
	31	07/30	3,599	45,243	12.6	176,345	989,279	5.6	30,440	217,980	7.2	2,128,782	7,857,042	3.7	201,051	1,764,563	8.8
	32	08/06	2,060	33,167	16.1	112,836	539,841	4.8	23,300	189,078	8.1	2,872,771	10,625,495	3.7	210,819	1,929,001	9.2
	33	08/13	1,079	17,882	16.6	67,570	330,022	4.9	53,116	434,249	8.2	3,341,678	12,729,040	3.8	169,016	1,501,213	8.9
	34	08/20	435	7,530	17.3	119,597	604,394	5.1	82,528	711,150	8.6	2,220,329	8,451,273	3.8	96,832	833,151	8.6
	35	08/27	59	1,054	17.9	17,123	87,375	5.1	18,136	156,857	8.6	335,802	1,333,357	4.0	73,702	623,076	8.5
	36	09/03	41	531	13.0	28,990	150,261	5.2	20,592	200,801	9.8	43,005	168,889	3.9	2,078	16,265	7.8
	37	09/10	3	76	25.3	31,877	162,379	5.1	12,490	120,930	9.7	6,909	25,493	3.7	2,174	17,278	7.9
	38	09/17	0	0	0.0	4,185	22,357	5.3	2,959	29,645	10.0	921	3,374	3.7	97	803	8.3
	39	09/24	0	0	0.0	197	934	4.7	1,603	16,827	10.5	149	544	3.7	14	122	8.7
	40	10/01	0	0	0.0	740	2,877	3.9	979	8,948	9.1	185	675	3.6	13	121	9.3
	41	10/08	0	0	0.0	0	0	0.0	20	150	7.5	0	0	0.0	0	0	0.0
TOTAL			21,167	274,751	13.0	1,839,153	10,879,280	5.9	266,446	2,232,106	8.4	11,948,730	44,836,268	3.8	1,220,405	10,992,947	9.0



Appendix G.16. Commercial salmon harvest by purse seine by statistical week in the Kodiak Management Area, 1988.

Appendix G.17. Salmon harvest by beach seine by statistical week in the Kodiak Management Area, 1988.

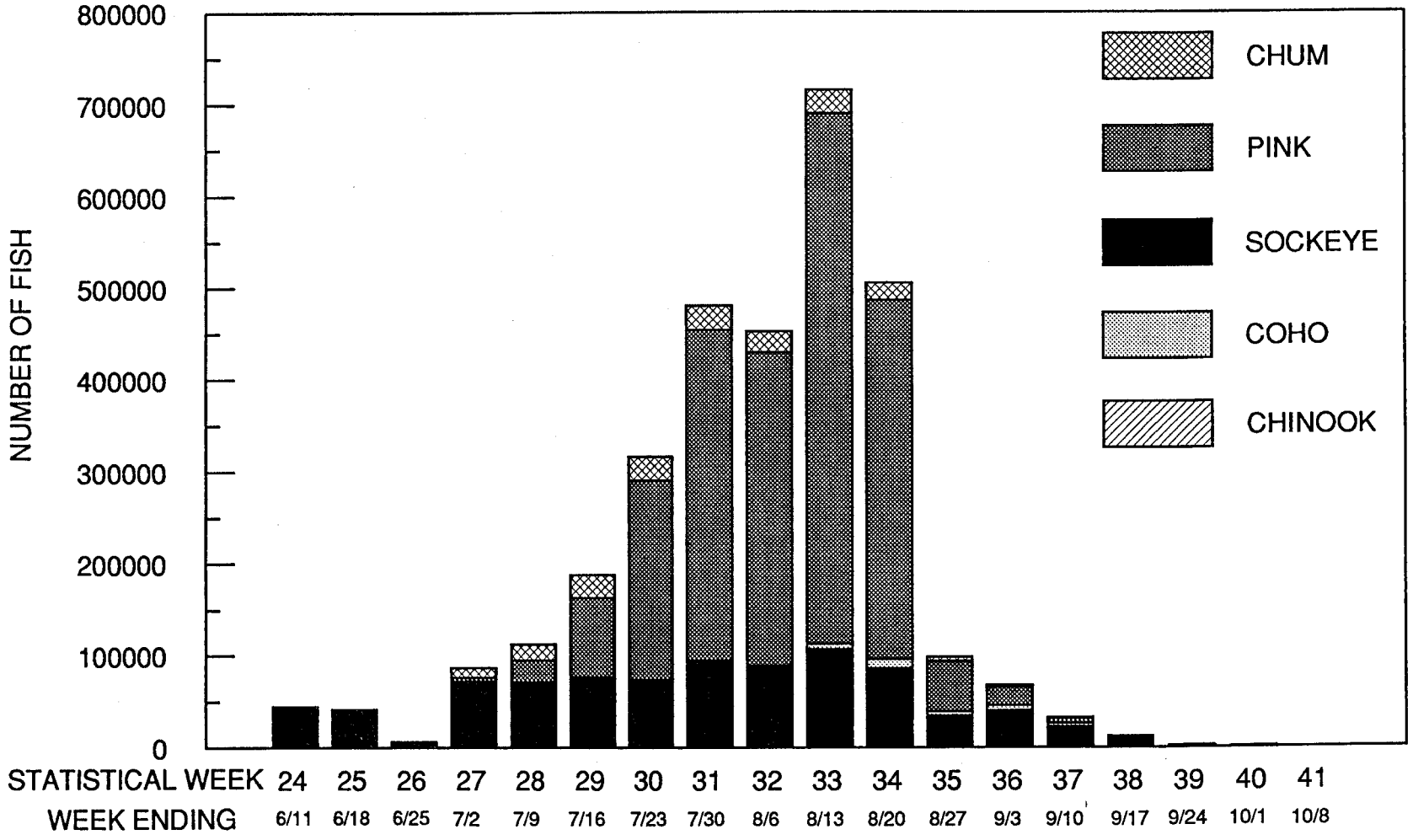
GEAR	STAT WEEK	WEEK END	Chinook #	Chinook LBS	Chinook AVG.	Sockeye #	Sockeye LBS	Sockeye AVG.	Coho #	Coho LBS	Coho AVG.	Pink #	Pink LBS	Pink AVG.	Chum #	Chum LBS	Chum AVG.
BEACH SEINE	24	06/11	0	0	0.0	32	220	6.9	0	0	0.0	0	0	0.0	0	0	0.0
	25	06/18	2	39	19.5	171	1,023	6.0	0	0	0.0	1	3	3.0	13	96	7.4
	26	06/25	0	0	0.0	378	2,400	6.3	0	0	0.0	53	197	3.7	98	873	8.9
	27	07/02	4	63	15.8	179	1,038	5.8	0	0	0.0	342	869	2.5	95	921	9.7
	28	07/09	1	25	25.0	251	1,292	5.1	0	0	0.0	3,079	11,609	3.8	1,135	9,930	8.7
	29	07/16	43	655	15.2	420	2,387	5.7	0	0	0.0	9,511	35,703	3.8	2,517	24,321	9.7
	30	07/23	4	101	25.3	124	689	5.6	8	60	7.5	17,029	65,341	3.8	2,603	21,948	8.4
	31	07/30	6	99	16.5	180	1,052	5.8	10	84	8.4	43,862	166,295	3.8	2,681	23,110	8.6
	32	08/06	13	293	22.5	37	180	4.9	12	85	7.1	43,601	160,487	3.7	5,050	45,935	9.1
	33	08/13	1	22	22.0	94	439	4.7	187	1,569	8.4	75,409	288,034	3.8	6,372	58,171	9.1
	34	08/20	1	19	19.0	186	999	5.4	349	2,580	7.4	24,164	91,925	3.8	1,041	8,741	8.4
	35	08/27	0	0	0.0	4	24	6.0	135	1,204	8.9	14,415	59,915	4.2	184	1,579	8.6
	36	09/03	0	0	0.0	18	64	3.6	144	1,417	9.8	2,792	10,709	3.8	16	131	8.2
	38	09/17	0	0	0.0	1	3	3.0	15	143	9.5	0	0	0.0	0	0	0.0
TOTAL			75	1,316	17.5	2,075	11,810	5.7	860	7,142	8.3	234,258	891,087	3.8	21,805	195,756	9.0



Appendix G.18. Commercial salmon harvest by beach seine by statistical week in the Kodiak Management Area, 1988.

Appendix G.19. Salmon harvest by set gillnet by statistical week in the Kodiak Management Area, 1988.

GEAR	STAT WEEK	WEEK END	Chinook #	Chinook LBS	Chinook AVG.	Sockeye #	Sockeye LBS	Sockeye AVG.	Coho #	Coho LBS	Coho AVG.	Pink #	Pink LBS	Pink AVG.	Chum #	Chum LBS	Chum AVG.
SET GILLNET	24	06/11	144	2,238	15.5	42,748	210,140	4.9	51	345	6.8	20	72	3.6	985	8,445	8.6
	25	06/18	71	1,119	15.8	38,528	187,494	4.9	6	51	8.5	47	173	3.7	2,276	19,548	8.6
	26	06/25	20	203	10.2	3,437	18,349	5.3	2	11	5.5	432	1,772	4.1	1,728	14,457	8.4
	27	07/02	113	1,717	15.2	71,575	358,216	5.0	45	348	7.7	4,136	16,543	4.0	10,683	91,409	8.6
	28	07/09	45	935	20.8	71,068	346,982	4.9	72	506	7.0	23,734	94,603	4.0	16,498	139,044	8.4
	29	07/16	93	2,014	21.7	76,371	449,445	5.9	301	2,154	7.2	85,865	344,894	4.0	24,810	208,397	8.4
	30	07/23	160	2,647	16.5	72,272	425,842	5.9	1,074	8,259	7.7	217,084	853,761	3.9	25,898	216,609	8.4
	31	07/30	133	2,634	19.8	92,834	510,741	5.5	1,814	14,865	8.2	359,573	1,405,559	3.9	26,364	215,438	8.2
	32	08/06	163	3,128	19.2	86,972	458,990	5.3	1,897	16,102	8.5	340,800	1,328,261	3.9	22,642	181,000	8.0
	33	08/13	88	1,497	17.0	106,707	571,504	5.4	5,703	50,352	8.8	577,079	2,284,619	4.0	25,379	198,267	7.8
	34	08/20	66	943	14.3	85,556	443,982	5.2	10,544	97,946	9.3	390,541	1,576,324	4.0	18,636	145,061	7.8
	35	08/27	10	122	12.2	34,162	181,421	5.3	5,061	48,628	9.6	54,542	222,297	4.1	4,453	33,517	7.5
	36	09/03	7	159	22.7	40,389	222,625	5.5	5,020	47,923	9.5	19,913	77,367	3.9	2,286	16,444	7.2
	37	09/10	16	215	13.4	22,692	127,666	5.6	3,354	32,281	9.6	5,034	19,350	3.8	1,178	8,384	7.1
	38	09/17	3	61	20.3	9,982	55,628	5.6	967	8,834	9.1	553	2,093	3.8	366	2,556	7.0
	39	09/24	0	0	0.0	1,393	7,710	5.5	46	402	8.7	12	47	3.9	7	53	7.6
	40	10/01	0	0	0.0	58	301	5.2	4	33	8.3	2	8	4.0	1	9	9.0
TOTAL			1,132	19,632	17.3	856,744	4,577,036	5.3	35,961	329,040	9.1	2,079,367	8,227,743	4.0	184,190	1,498,638	8.1

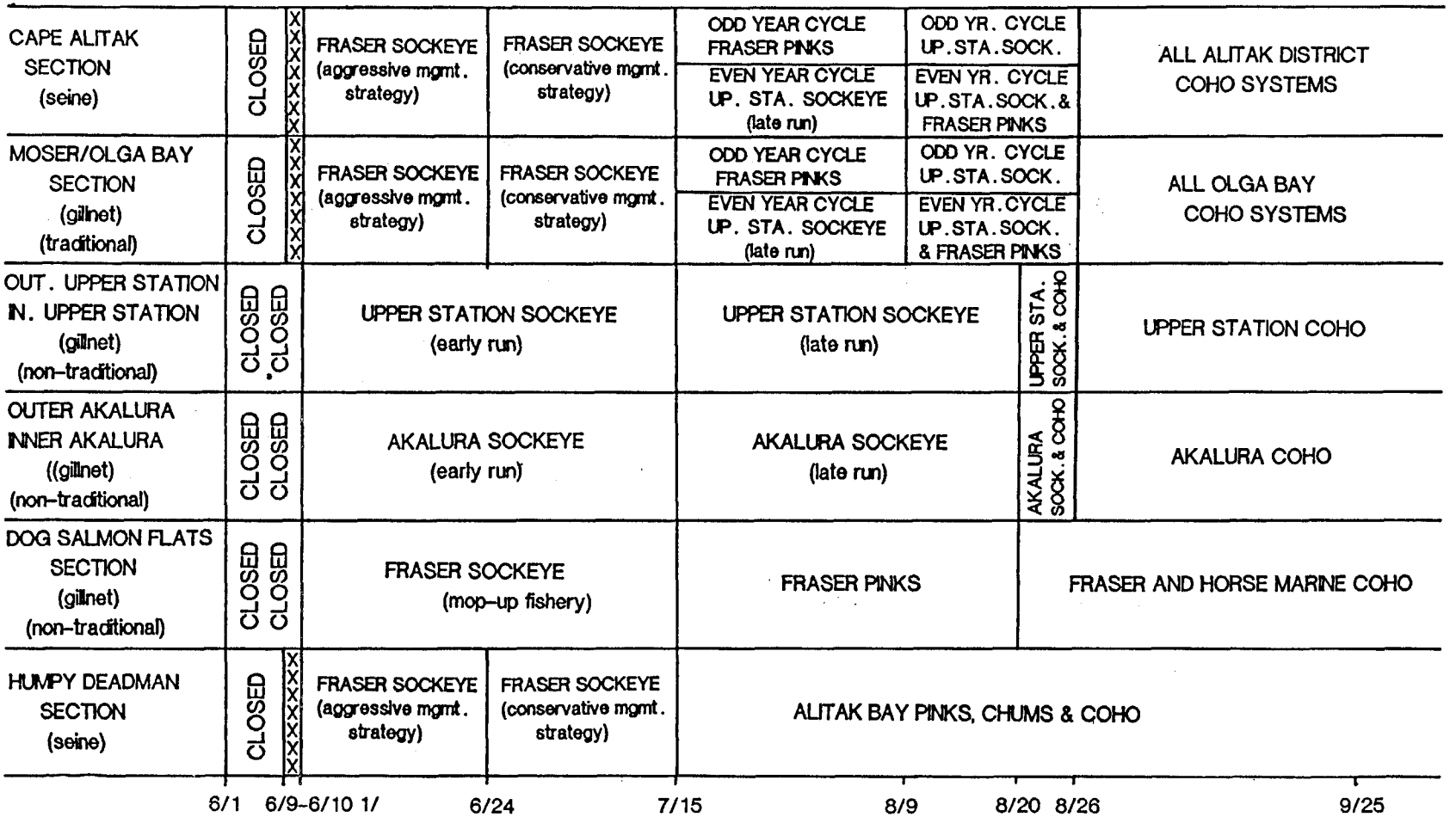


Appendix G.20. Commercial salmon harvest by set gillnet by statistical week in the Kodiak Management Area, 1988.

Appendix G.21. Salmon harvest by hatchery and ADF&G test fishing by statistical week in the Kodiak Management Area, 1988.

GEAR	STAT WEEK	WEEK END	Chinook #	Chinook LBS	Chinook AVG.	Sockeye #	Sockeye LBS	Sockeye AVG.	Coho #	Coho LBS	Coho AVG.	Pink #	Pink LBS	Pink AVG.	Chum #	Chum LBS	Chum AVG.
HATCHERY	31	07/30	0	0	0.0	0	0	0.0	0	0	0.0	18,833	58,384	3.1	0	0	0.0
	32	08/06	0	0	0.0	16	64	4.0	12	72	6.0	143,464	504,948	3.5	0	0	0.0
	33	08/13	0	0	0.0	50	200	4.0	15	100	6.7	125,239	451,666	3.6	0	0	0.0
	36	09/03	0	0	0.0	0	0	0.0	4	34	8.5	9,147	34,762	3.8	0	0	0.0
TOTAL			0	0	0.0	66	264	4.0	31	206	6.6	296,683	1,049,760	3.5	0	0	0.0
TEST FISH	23	06/04	0	0	0.0	72	355	4.9	0	0	0.0	0	0	0.0	0	0	0.0
	24	06/11	0	0	0.0	44	202	4.6	0	0	0.0	0	0	0.0	1	13	13.0
	25	06/18	0	0	0.0	191	869	4.5	0	0	0.0	0	0	0.0	1	15	15.0
	26	06/25	0	0	0.0	251	1,150	4.6	0	0	0.0	0	0	0.0	7	64	9.1
	27	07/02	0	0	0.0	41	207	5.0	0	0	0.0	0	0	0.0	1	10	10.0
TOTAL			0	0	0.0	599	2,783	4.6	0	0	0.0	0	0	0.0	10	102	10.2

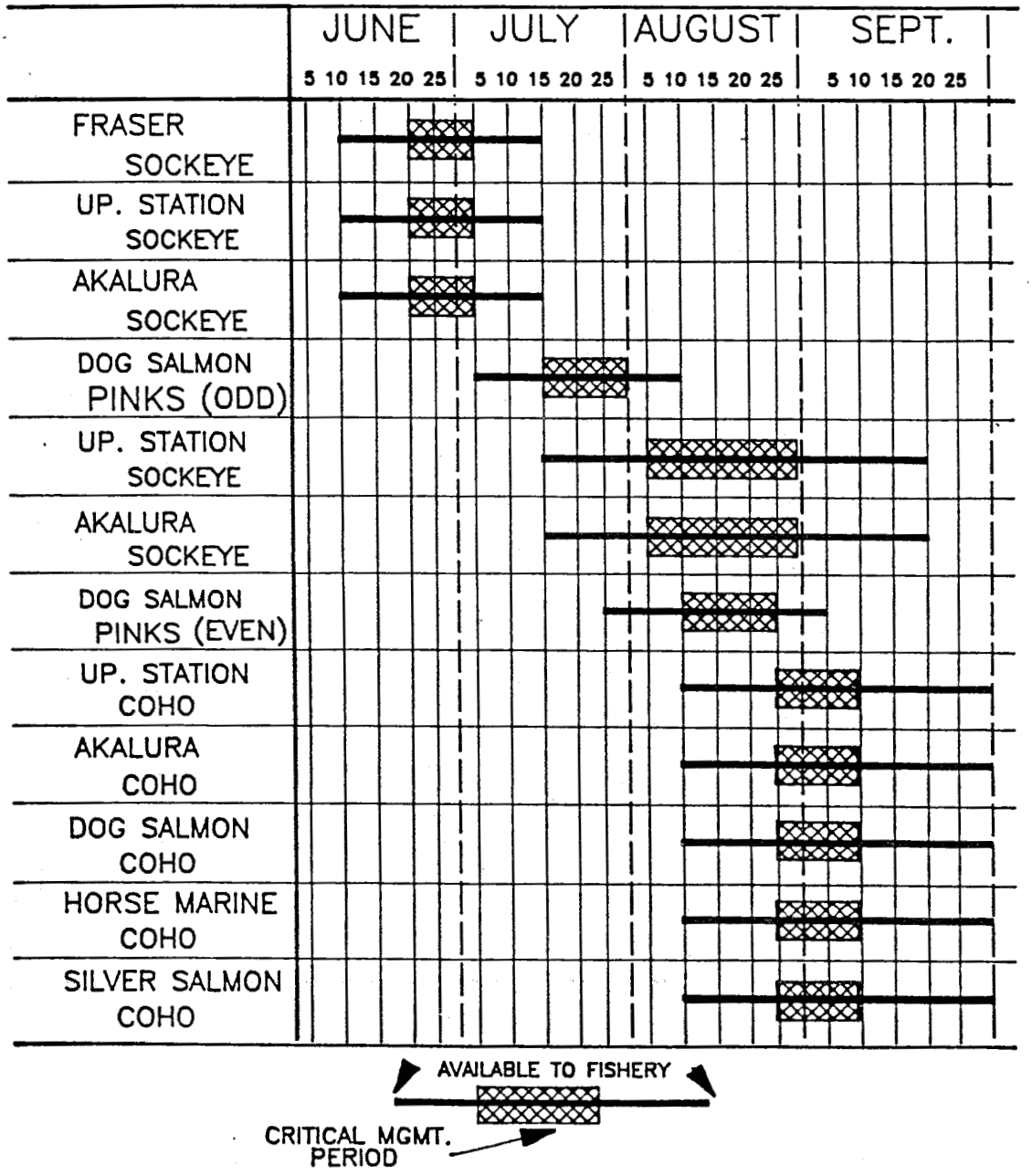
Appendix H.1. Alitak Bay District harvest strategy, 1988.



1/ The 33 hour period from 12noon June 9 through 9pm. June 10, is an annually guaranteed commercial test fishery occuring only in those sections denoted with crosshatching (XXX).

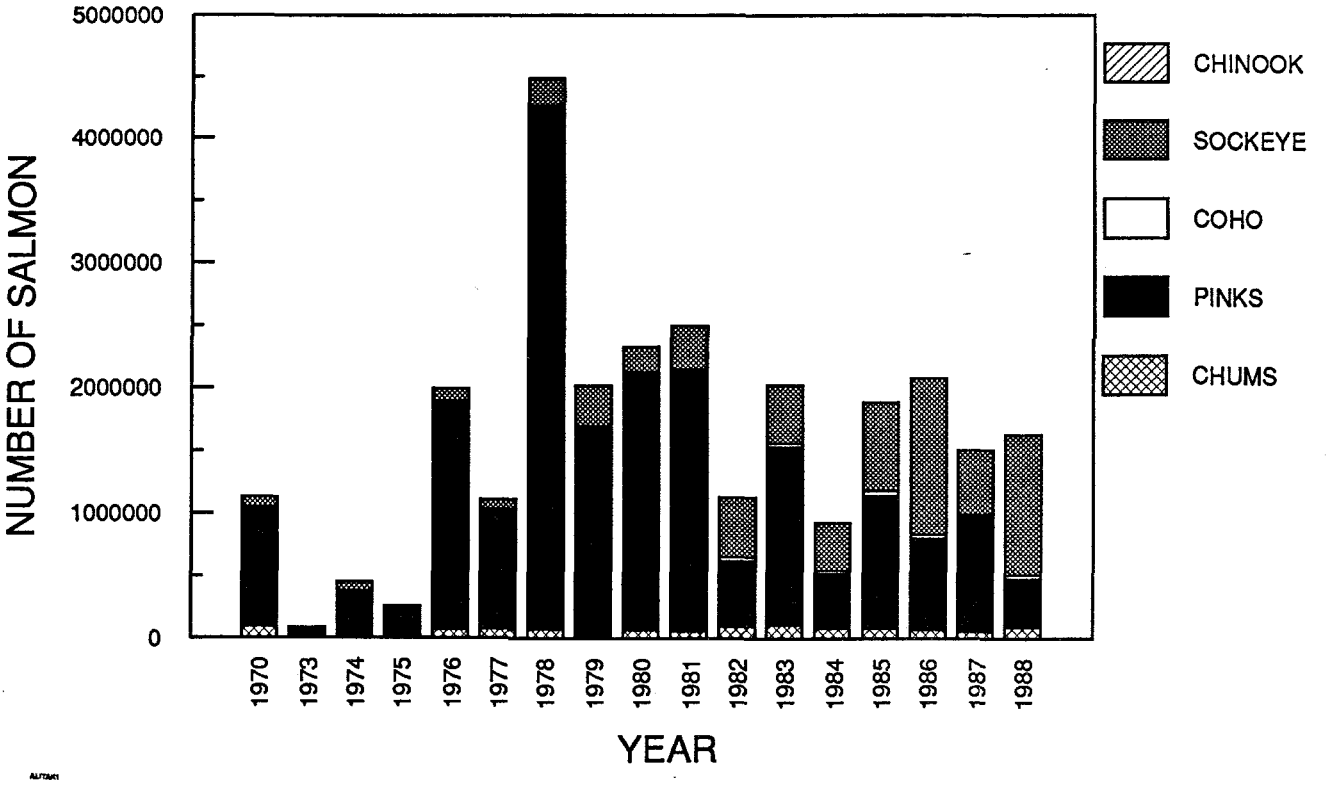
Appendix H.2. Primary species by system by date, 1988.

KODIAK MANAGEMENT AREA – ALITAK BAY DISTRICT
PRIMARY MANAGEMENT SPECIES BY SYSTEM BY TIME



Appendix H.3. Alitak Bay fishery historical harvest by species in the Kodiak Management Area, 1970-1988.

Year	Chinook	Sockeye	Coho	Pink	Chum
1970	8	81,544	4,540	949,871	93,320
1973	4	10,338	125	49,932	24,408
1974	19	67,743	1,284	355,m154	23,939
1975	0	16,498	1,627	235,711	2,853
1976	18	97,015	3,535	1,826,482	68,132
1977	20	78,812	1,343	961,673	70,969
1978	694	218,301	2,788	4,191,756	72,166
1979	108	317,260	15,007	1,664,410	22,462
1980	33	197,937	13,120	2.053,080	67,659
1981	45	346,073	17,011	2,073,629	61,513
1982	43	476,862	29,378	519,880	101,543
1983	159	460,087	28,947	1,428,526	107,786
1984	290	382,729	25,299	433,806	84,924
1985	199	703,235	43,914	1,057,940	84,760
1986	134	1,247,976	30,548	728,205	75,643
1987	105	515,484	17,960	916,883	59,727
1988	624	1,124,073	30,001	385,735	93,401



Appendix H.4. Alitak Bay District fishery (June 1 - Oct 30) historical salmon harvest by species, Kodiak Management Area, 1970-1988.

Appendix H.5. Alitak District salmon harvest by seine by species and year in the Kodiak Management Area, 1954-1988.

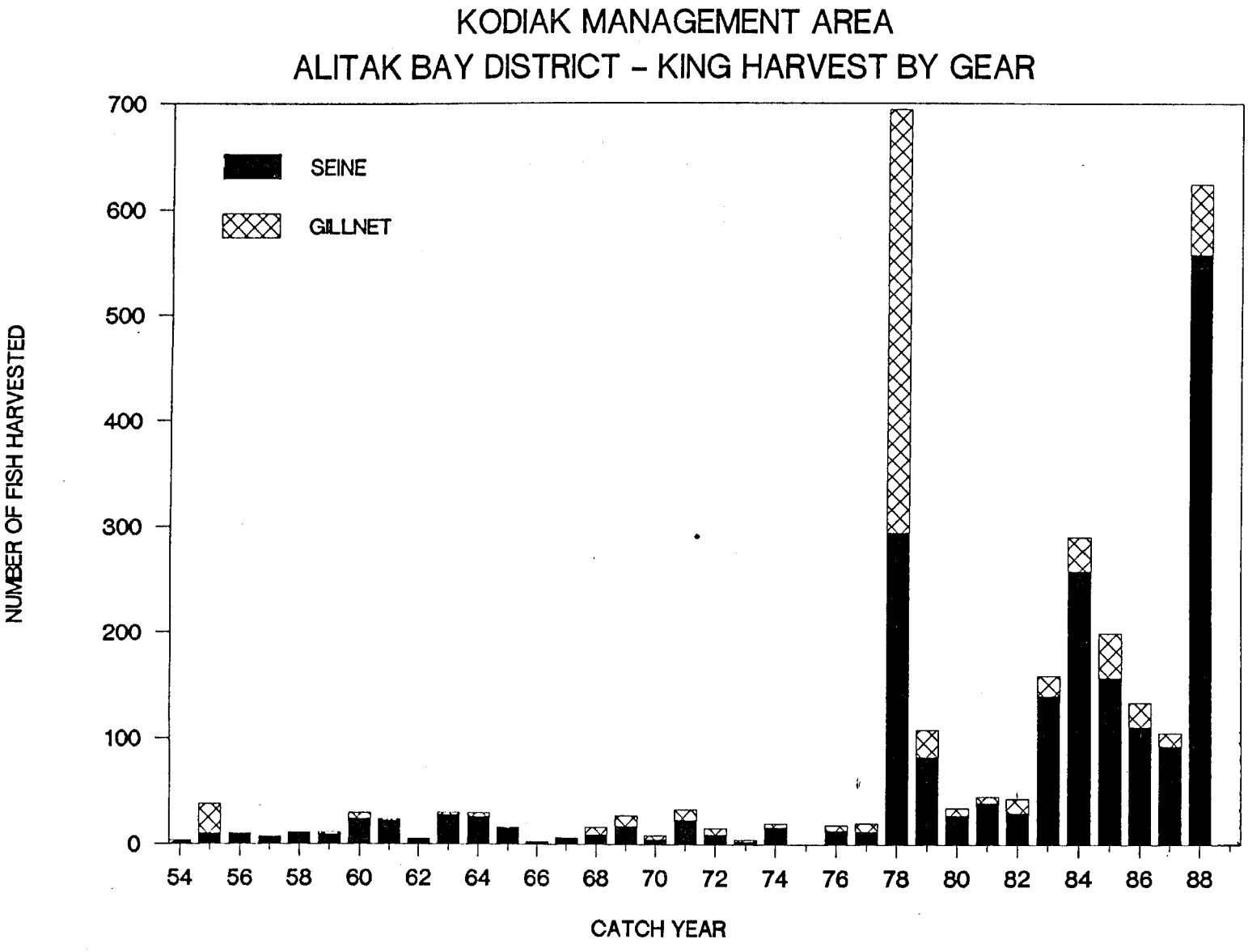
Year	Chinook	Sockeye	Coho	Pink	Chum
1954	2	2,486	75	257,726	45,043
1955	10	6,033	131	1,400,913	83,359
1956	9	14,153	678	234,154	49,747
1957	6	1,915	260	361,397	36,050
1958	11	6,310	329	545,654	74,904
1959	9	10,225	263	418,168	64,642
1960	24	15,454	497	1,170,706	89,332
1961	22	48,832	753	1,358,658	49,702
1962	4	31,239	376	1,456,537	40,132
1963	28	22,212	834	1,313,775	38,575
1964	26	13,932	548	761,868	29,881
1965	15	22,059	575	1,004,528	17,181
1966	1	6,605	127	255,620	27,132
1967	6	2,567	50	28,911	7,780
1968	9	5,731	776	821,387	19,261
1969	17	45,323	6,707	3,455,696	38,406
1970	4	19,528	1,227	690,798	79,433
1971	23	55,514	777	955,531	178,454
1972	9	6,681	628	155,451	87,218
1973	2	3,889	38	32,486	19,880
1974	16	32,137	661	329,623	20,160
1975	0	4,660	1,586	210,097	1,726
1976	13	27,957	1,659	1,338,996	56,996
1977	12	24,474	572	738,853	62,661
1978	294	88,785	1,327	3,691,218	60,625
1979	82	159,099	6,840	1,550,402	15,241
1980	27	36,057	8,517	1,793,284	59,438
1981	39	91,525	7,611	1,807,562	38,722
1982	30	67,168	17,504	380,224	79,398
1983	140	190,776	15,831	1,228,208	85,491
1984	258	126,515	12,409	323,767	64,145
1985	157	261,961	22,707	906,570	57,005
1986	111	522,993	17,041	603,812	63,185
1987	93	193,206	8,481	831,927	37,865
1988	558	470,529	18,670	251,888	60,693

Appendix H.6. Alitak District salmon harvest with gillnet by species and year in the Kodiak Management Area, 1954-1988.

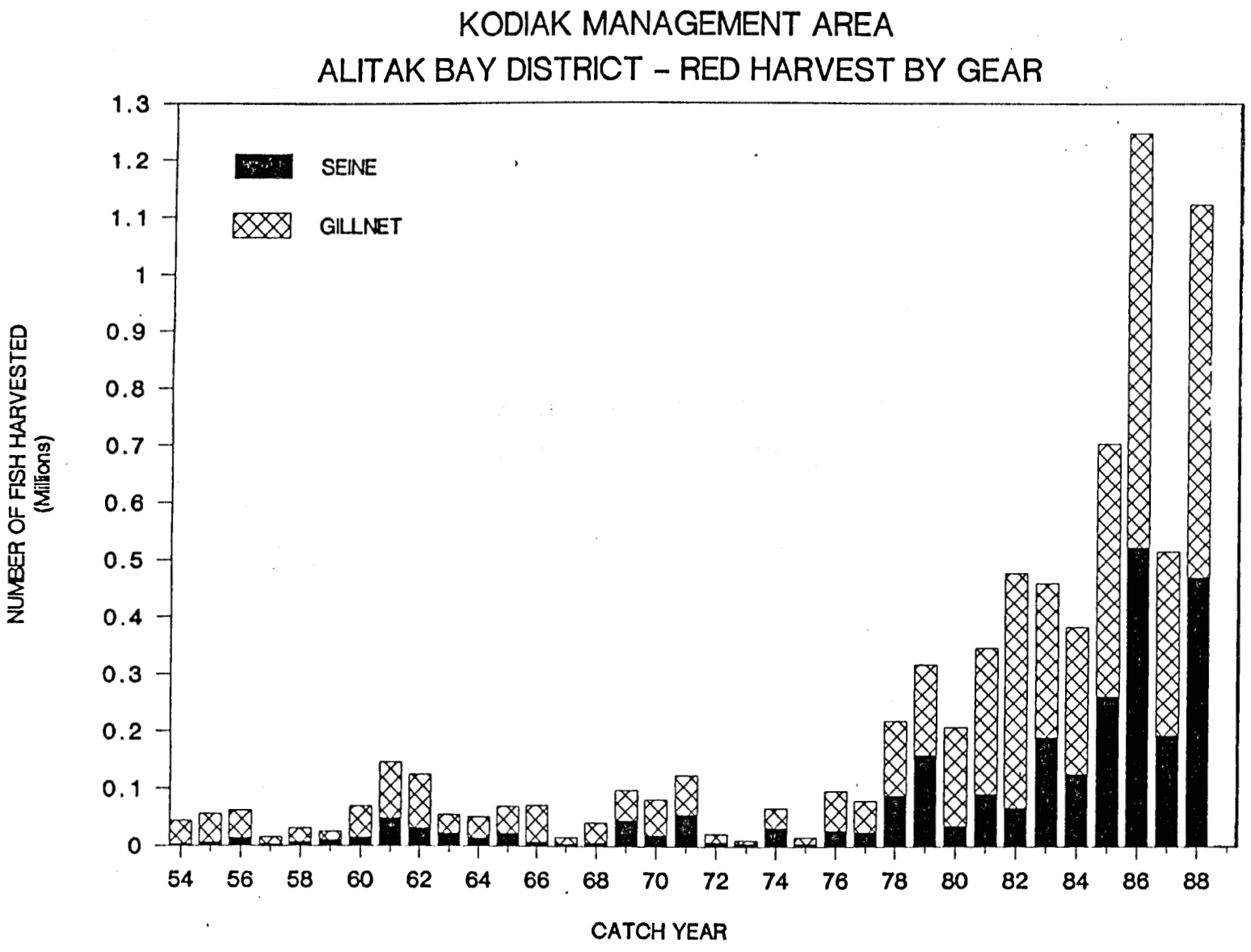
Year	Chinook	Sockeye	Coho	Pink	Chum
1954	1	41,962	1,043	232,312	10,745
1955	28	50,025	279	255,450	16,672
1956	1	48,520	226	101,515	6,220
1957	1	13,450	118	49,223	13,611
1958	0	24,232	159	225,197	6,351
1959	2	14,663	115	126,424	5,947
1960	5	53,018	1,632	390,770	13,100
1961	1	96,949	717	230,369	10,898
1962	1	93,257	1,416	430,232	13,983
1963	2	32,780	368	209,081	4,261
1964	3	36,235	1,776	646,863	4,579
1965	1	46,817	113	124,657	3,423
1966	1	63,921	458	173,584	6,021
1967	0	11,660	0	56,007	9,597
1968	7	34,931	2,925	224,834	10,189
1969	10	53,399	533	313,221	6,728
1970	4	62,000	3,313	258,690	13,873
1971	10	68,966	1,484	110,649	12,983
1972	6	15,446	642	31,703	6,018
1973	2	6,449	87	17,446	4,528
1974	3	34,468	623	33,766	2,060
1975	0	11,855	41	25,623	1,129
1976	5	68,711	1,859	465,007	9,187
1977	8	54,331	771	222,820	8,317
1978	400	129,380	1,461	500,538	11,541
1979	26	158,807	8,167	113,847	7,213
1980	7	172,143	4,455	239,952	8,033
1981	6	254,548	9,400	266,067	22,791
1982	13	409,694	11,874	139,656	22,145
1983	19	269,311	13,122	90,318	22,295
1984	32	256,214	12,890	110,039	20,779
1985	42	441,225	21,207	151,342	27,755
1986	23	724,983	13,507	124,393	12,458
1987	12	322,204	9,478	84,948	21,858
1988	66	652,945	11,331	133,847	32,698

Appendix H.7. Alitak District sockeye salmon harvest by gear in the Kodiak Management Area, 1977-1988.

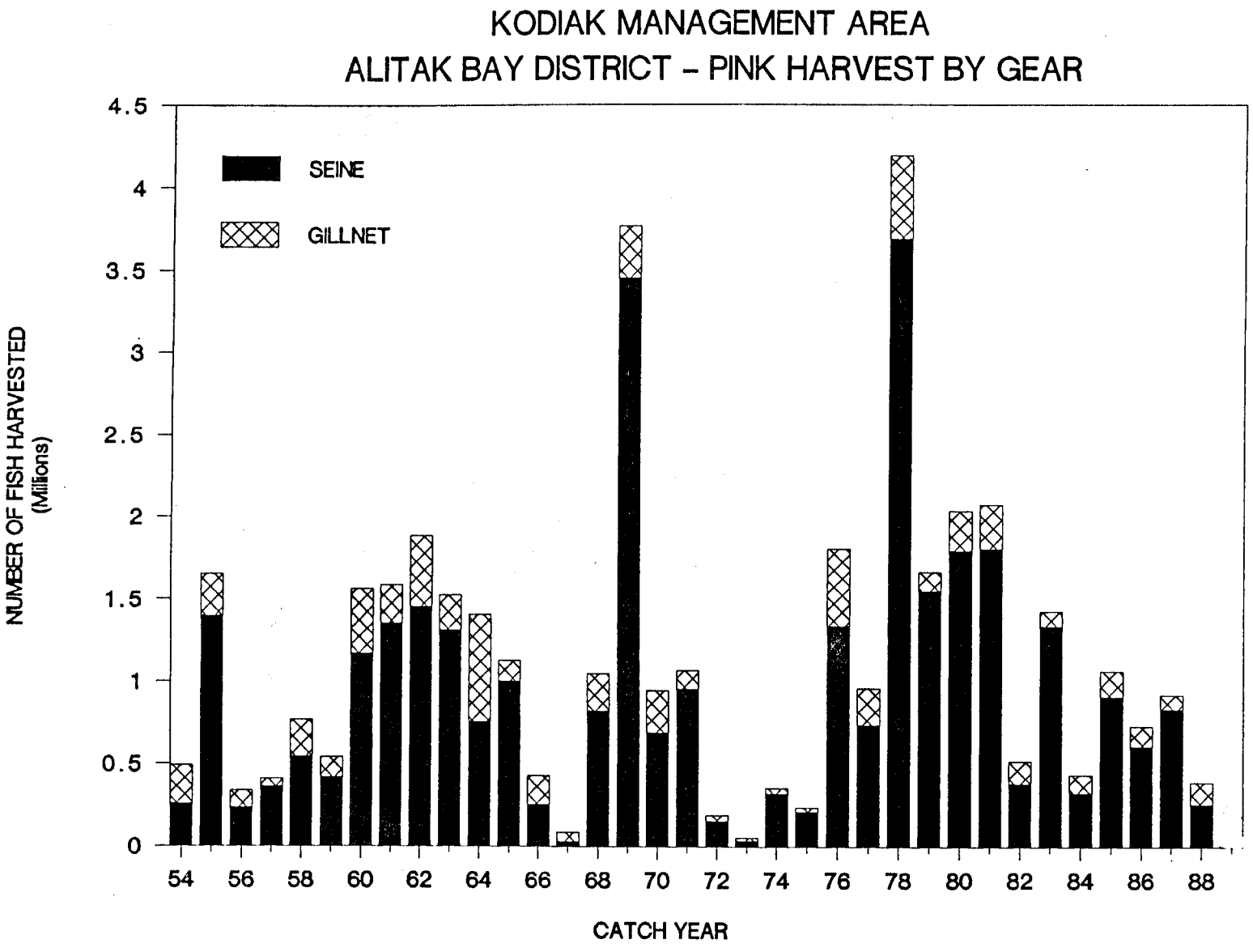
Year	Seine		Gillnet		Total
	Number	%	Numbers	%	
1977	32,000	41	47,000	59	79,000
1978	103,000	47	115,000	53	218,000
1979	179,000	56	139,000	44	318,000
1980	72,000	36	126,000	64	198,000
1981	142,000	41	204,000	59	346,000
1982	93,000	20	382,000	80	475,000
1983	210,000	46	250,000	54	460,000
1984	162,000	42	221,000	58	383,000
1985	293,000	42	411,000	58	704,000
1986	521,000	42	728,000	58	1,249,000
1987	193,000	38	322,000	62	515,000
1988	483,000	43	641,000	57	1,124,000
11 Year Avg. 1977 - 1987	182,000	41	268,000	59	450,000



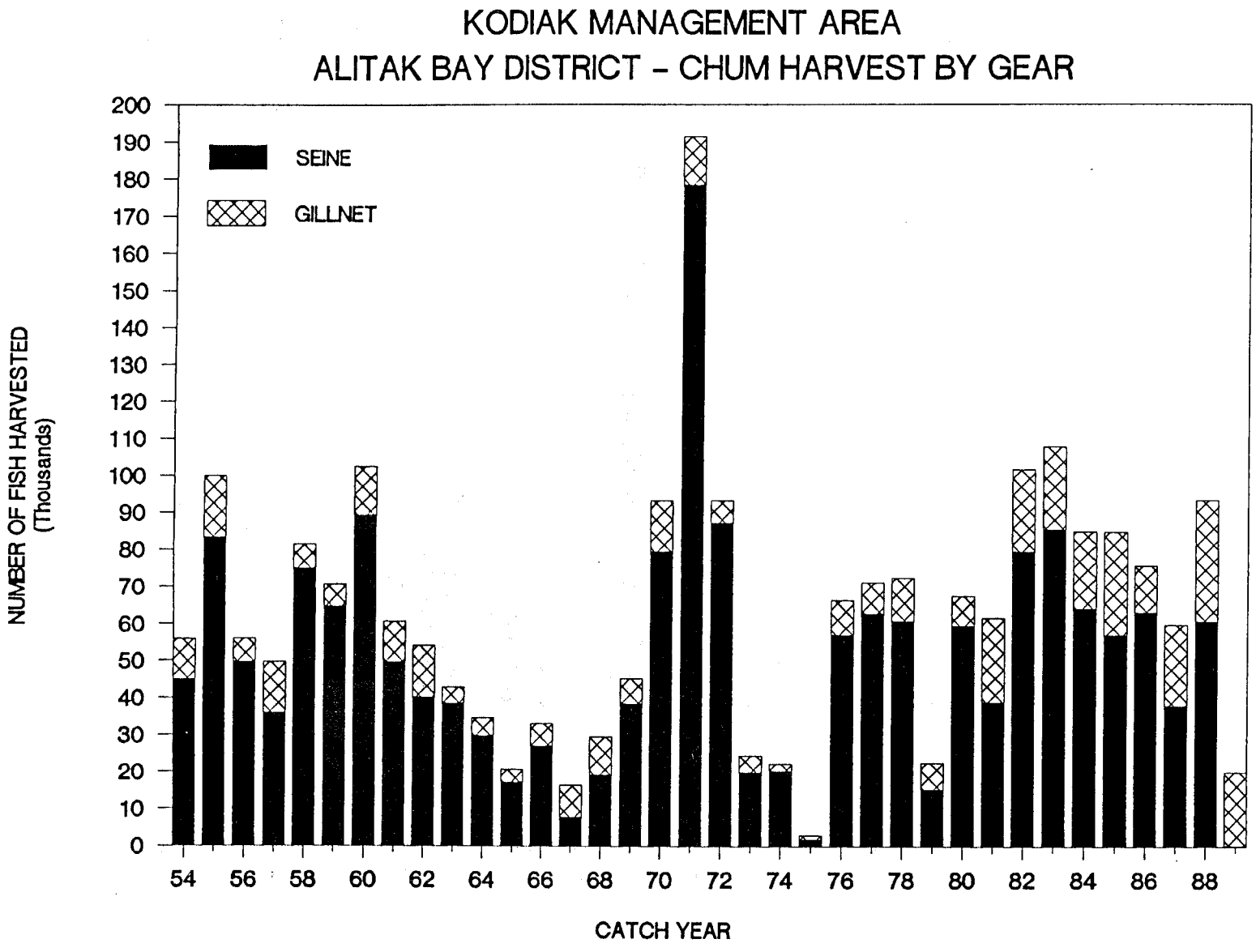
Appendix H.8. Historical chinook salmon harvest in the Alitak Bay District, by gear type, Kodiak Management Area, 1954-1988.



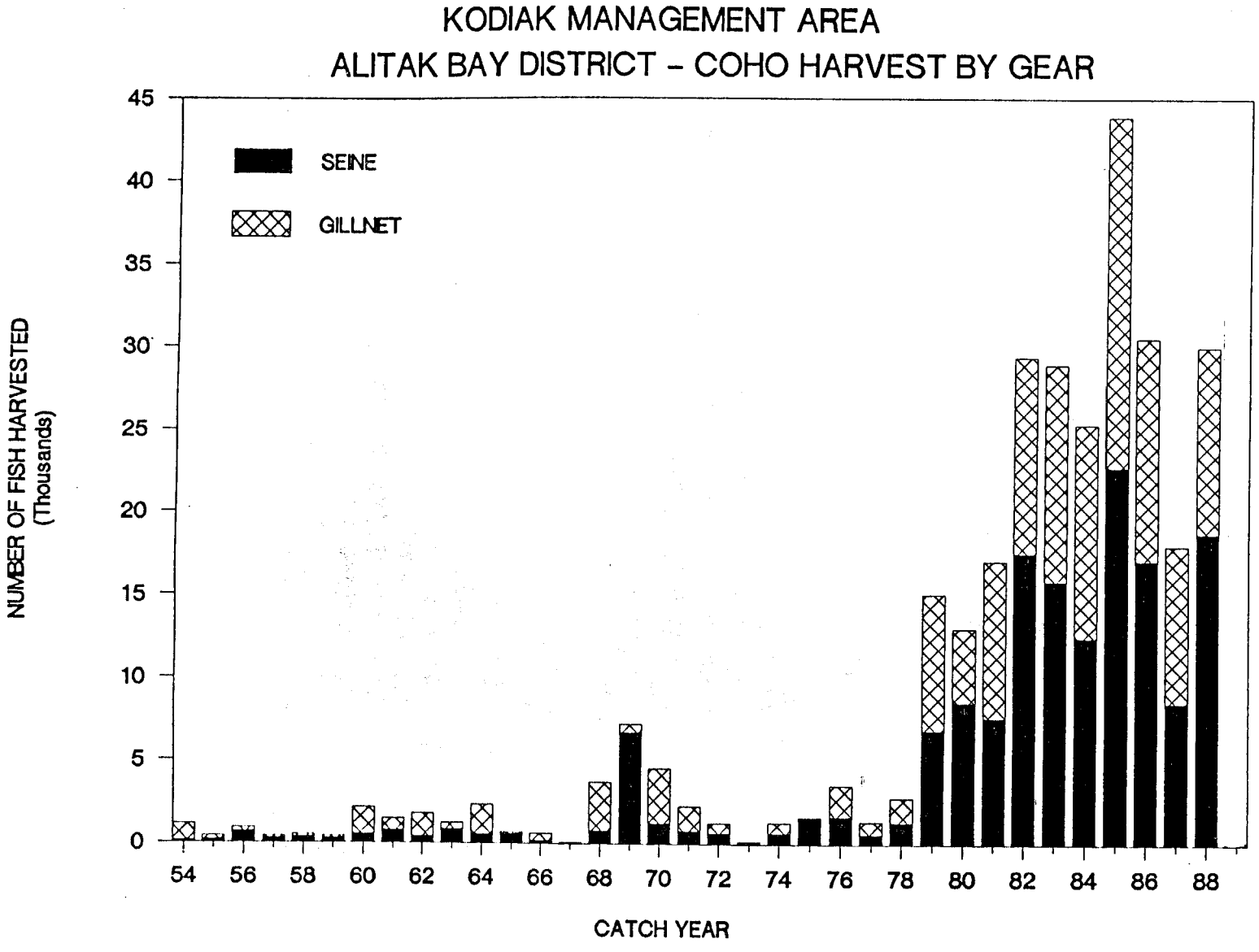
Appendix H.9. Historical sockeye salmon harvest in the Alitak Bay District, by gear type, Kodiak Management Area, 1954-1988.



Appendix H.10. Historical pink salmon harvest in the Alitak Bay District, by gear type, Kodiak Management Area, 1954-1988.

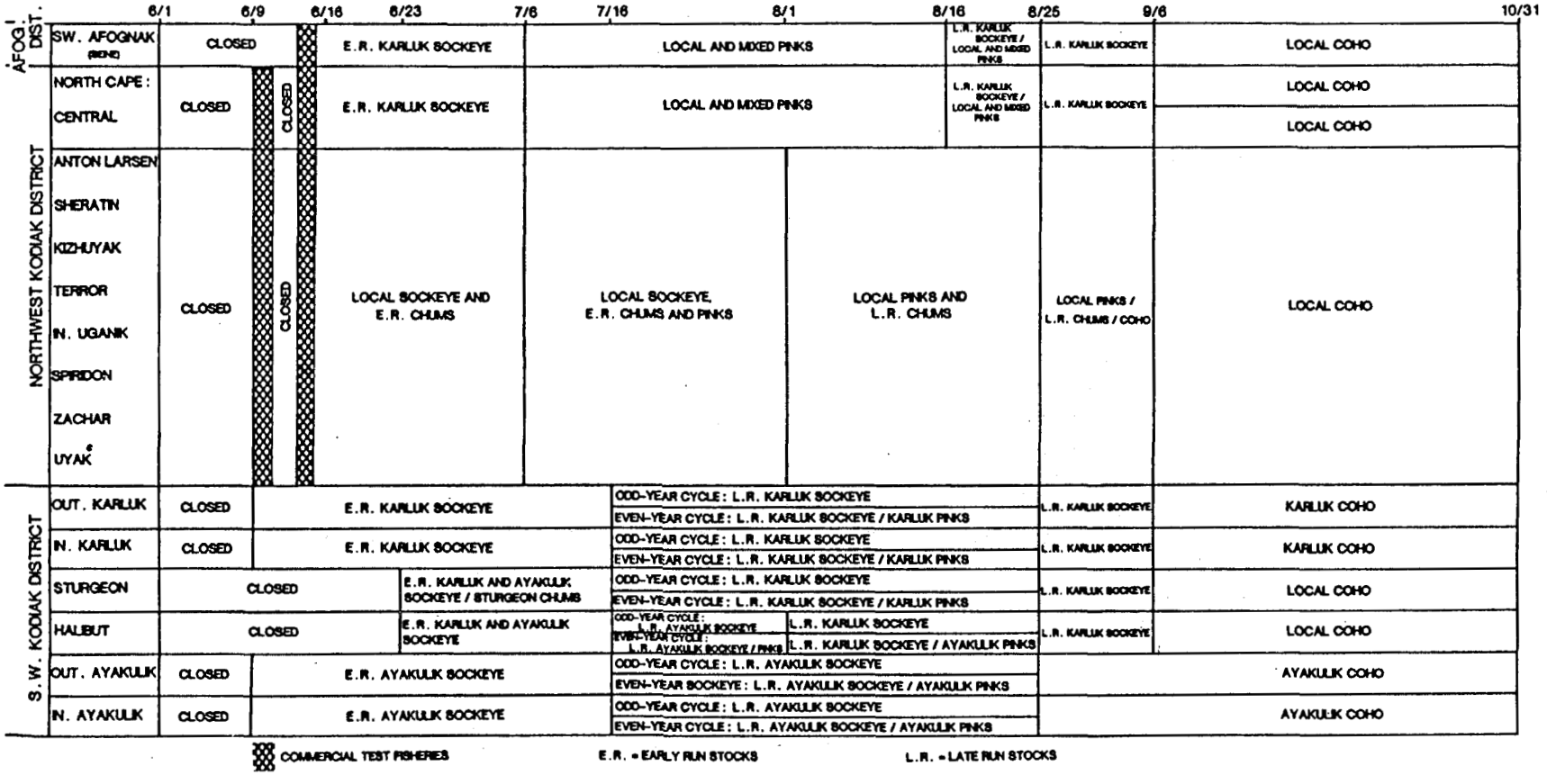


Appendix H.11. Historical chum salmon harvest in the Alitak Bay District, by gear type, Kodiak Management Area, 1954-1988.



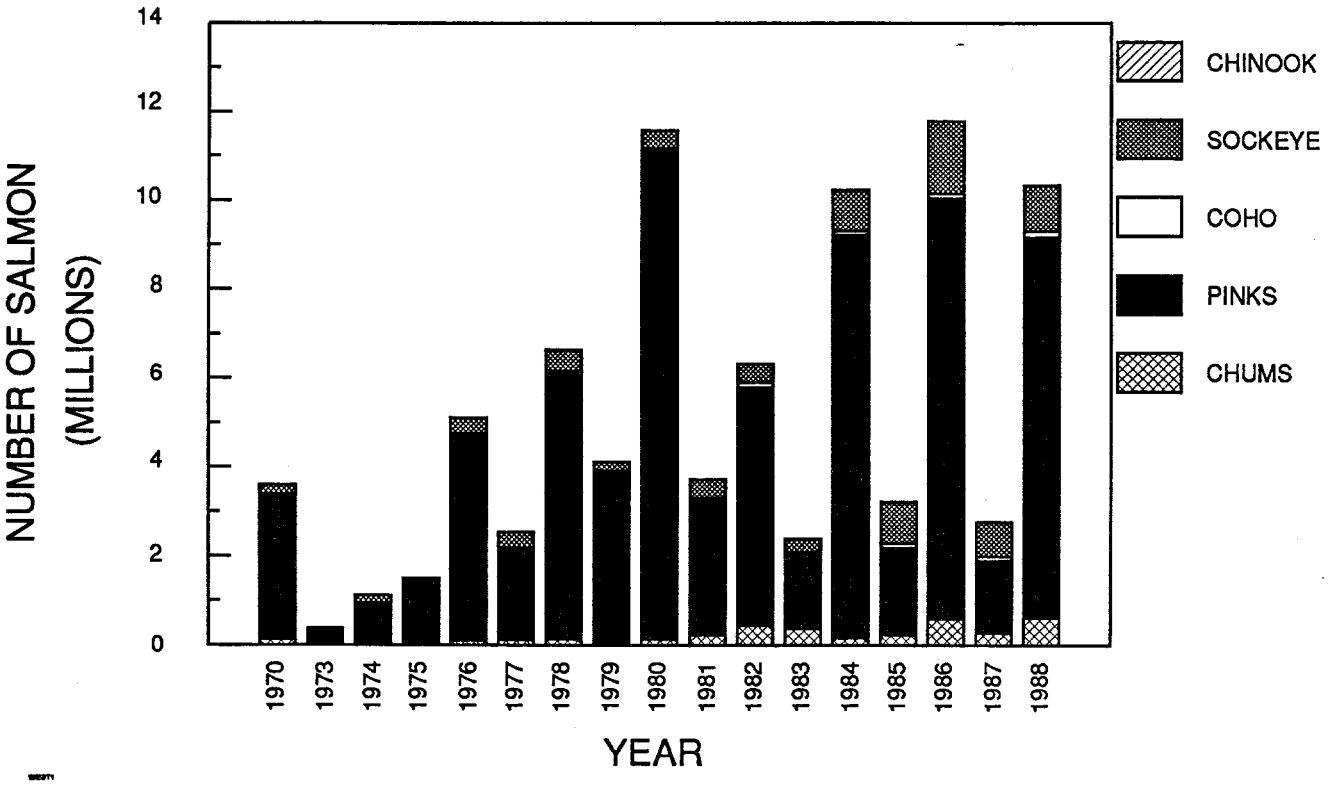
Appendix H.12. Historical coho salmon harvest in the Alitak Bay District, by gear type, Kodiak Management Area, 1954-1988.

Appendix I.1. Westside harvest strategy calendar, Kodiak Management Area, 1988.



Appendix I.2. Westside Kodiak fishery historical harvest by species in the Kodiak Management Area, 1970 - 1988.

Year	Chinook	Sockeye	Coho	Pink	Chum
1970	598	221,155	34,196	3,211,612	127,350
1973	139	71,740	978	255,141	46,457
1974	204	176,270	2,208	907,341	33,864
1975	44	71,450	12,205	1,381,538	34,106
1976	212	341,502	10,010	4,668,346	94,543
1977	449	355,060	11,837	2,065.723	113,187
1978	1,336	476,020	17,289	6,046,100	127,772
1979	601	183,422	44,210	3,832,454	60,414
1980	377	409,383	33,298	11,024,270	128,993
1981	841	407,733	31,479	3,045,743	233,440
1982	830	421,666	111,091	5,366,406	442,142
1983	2,284	277,052	42,405	1,689,945	366,951
1984	3,566	910,500	92,943	9,075,796	159,241
1985	4,281	917,402	90,431	1,962,918	225,712
1986	3,728	1,632,227	102,304	9,472,330	584,538
1987	2,267	753,929	85,066	1,643,244	261,589
1988	11,848	998,891	141,115	8,574,478	609,946



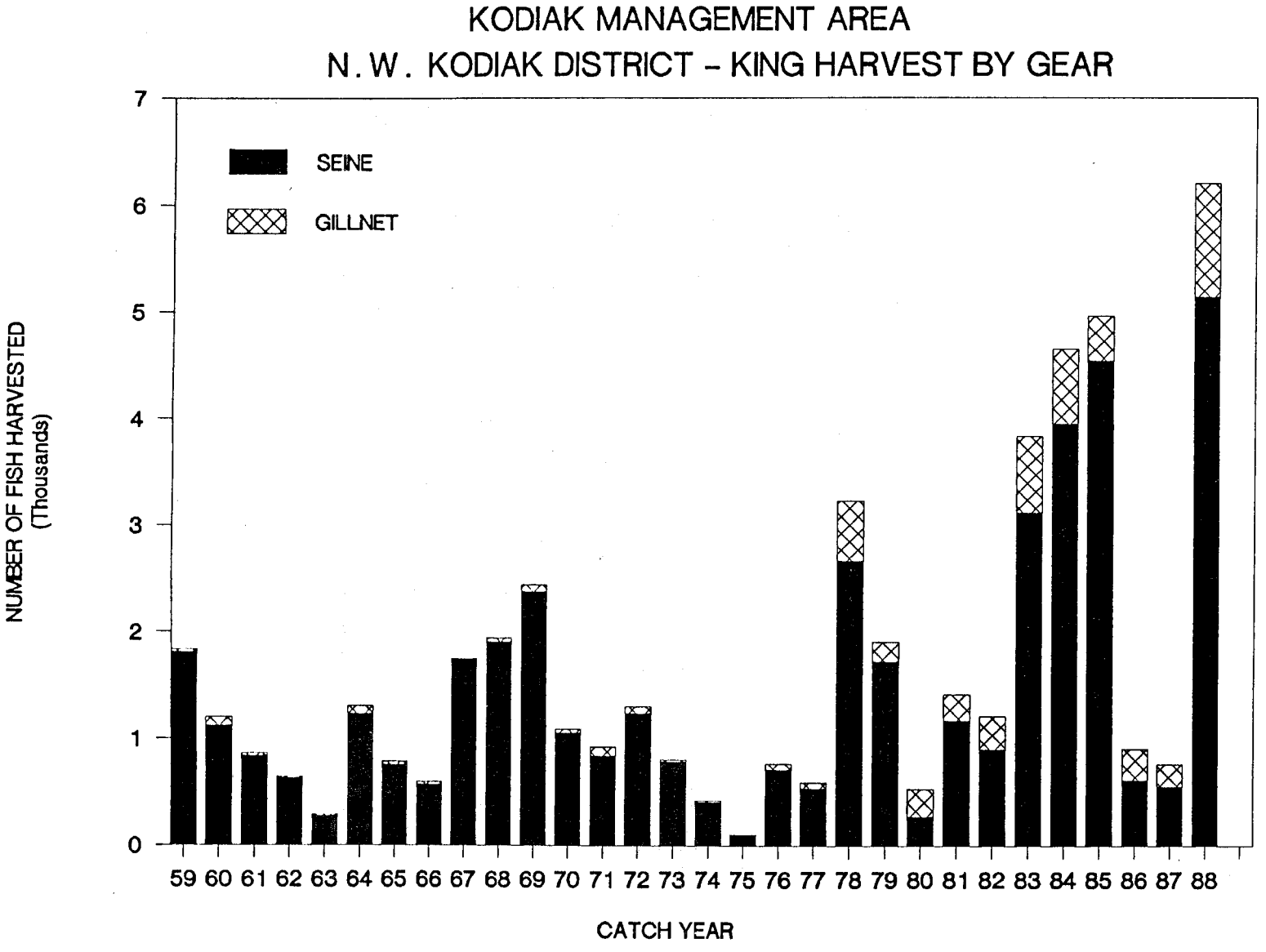
Appendix I.3. Westside Kodiak fishery (June 1 - Oct 30) historical salmon harvest by species, Kodiak Management Area, 1970-1988.

Appendix I.4. Northwest Kodiak District salmon harvest by seine by species in the Kodiak Management Area, 1959-1988.

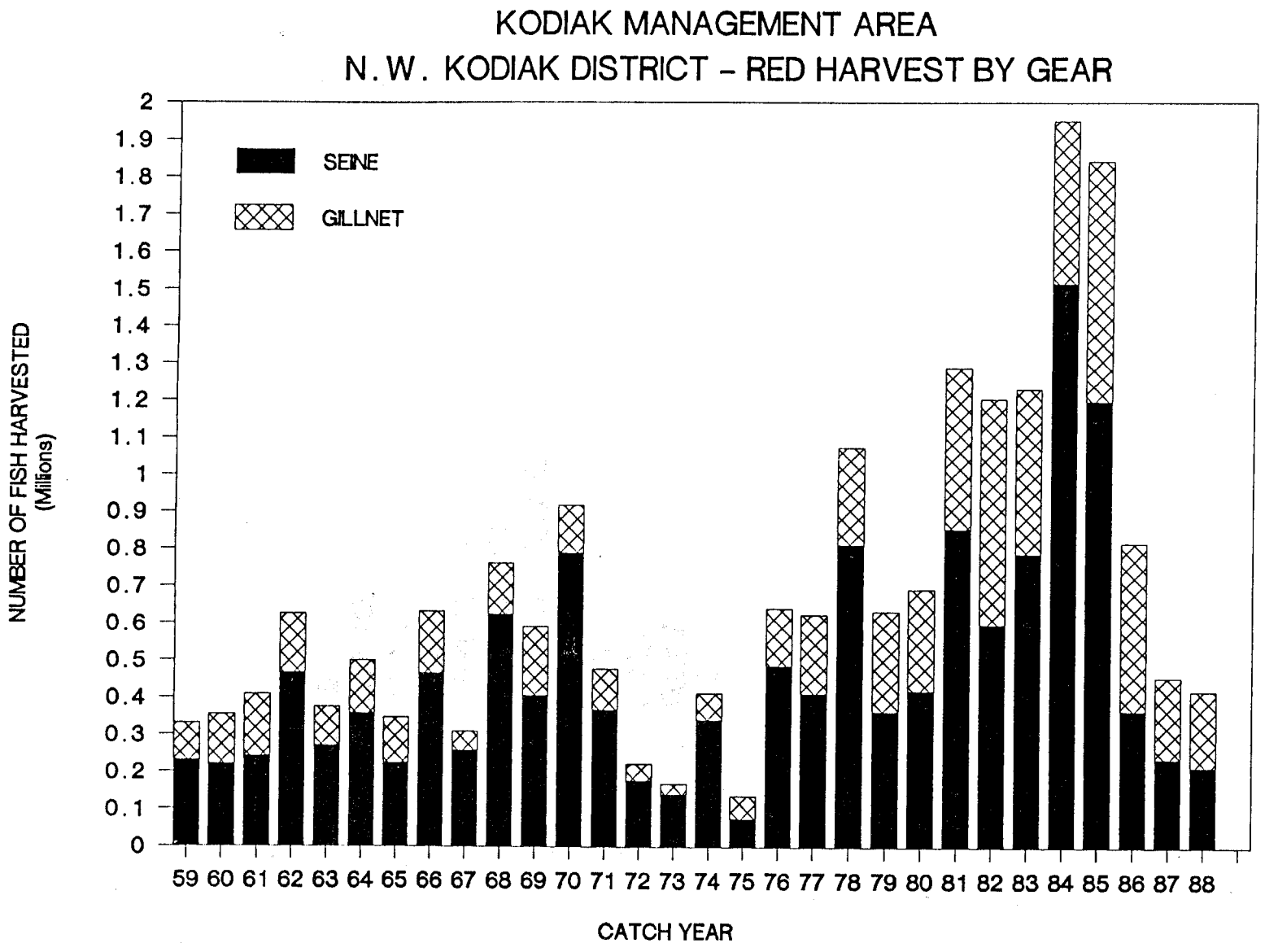
Year	Chinook	Sockeye	Coho	Pink	Chum
1959	1,809	339,795	14,109	1,799,675	718,559
1960	1,120	221,457	49,697	6,051,666	1,116,441
1961	837	241,837	26,309	3,568,466	509,942
1962	627	466,093	11,608	10,284,280	566,482
1963	271	269,111	51,725	5,122,990	276,851
1964	1,231	356,742	33,084	10,908,822	1,092,124
1965	755	223,772	25,322	2,651,658	396,281
1966	568	465,675	62,902	9,979,916	697,429
1967	1,740	257,709	9,800	129,017	213,156
1968	1,902	624,959	52,873	8,108,230	689,588
1969	2,381	405,589	47,122	12,010,010	511,519
1970	1,052	788,652	60,692	11,292,242	864,231
1971	838	367,875	19,273	4,074,530	1,477,609
1972	1,235	176,188	14,043	2,302,418	1,088,836
1973	782	139,447	3,180	437,140	304,302
1974	406	340,467	12,682	2,429,400	235,346
1975	91	75,781	22,826	2,703,498	73,411
1976	711	484,911	20,250	9,803,918	698,486
1977	530	410,295	25,110	5,371,964	1,033,539
1978	2,663	810,890	44,956	13,483,622	764,400
1979	1,723	362,838	115,005	10,266,189	322,911
1980	271	417,819	125,937	15,786,454	1,020,972
1981	1,173	854,049	106,227	8,715,776	1,223,600
1982	902	596,477	310,566	6,776,871	1,094,279
1983	3,118	786,648	132,967	4,013,300	971,848
1984	3,958	1,516,364	205,501	9,416,469	574,590
1985	4,551	1,198,772	250,304	6,544,832	338,667
1986	612	366,251	40,495	4,775,416	353,922
1987	549	237,467	27,007	883,356	123,191
1988	5,419	215,165	70,381	5,086,941	385,043

Appendix I.5. Northwest Kodiak District salmon harvest by set gillnet by species in the Kodiak Management Area, 1959-1988.

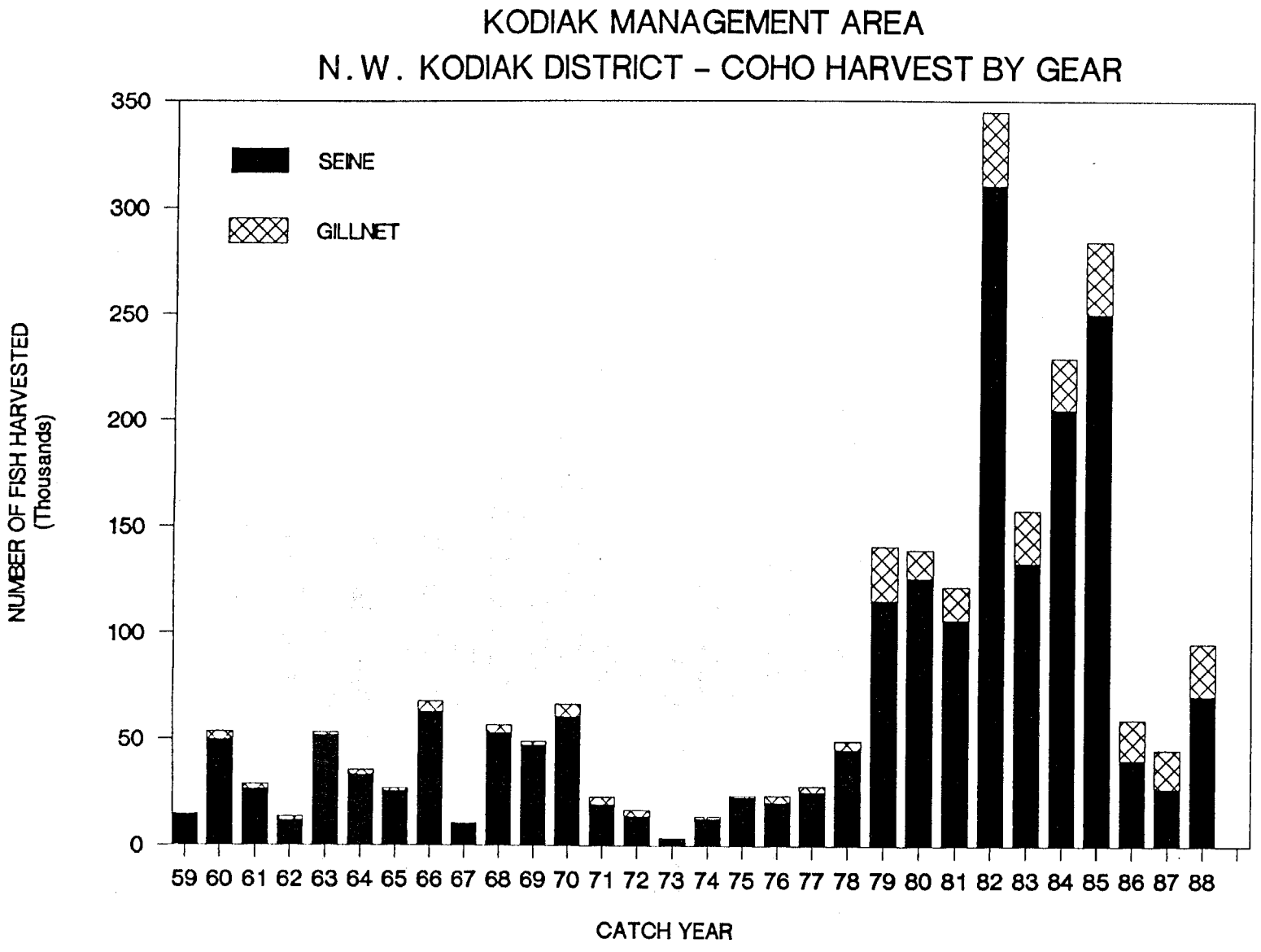
Year	Chinook	Sockeye	Coho	Pink	Chum
1959	28	100,292	403	167,383	15,225
1960	81	133,283	3,689	627,042	70,036
1961	27	166,804	2,317	357,143	32,488
1962	17	159,091	1,730	531,750	22,377
1963	15	104,031	1,297	336,369	27,810
1964	75	141,746	2,451	1,135,519	42,039
1965	31	122,478	1,354	236,285	35,114
1966	26	165,950	4,798	776,623	65,191
1967	13	51,047	554	58,796	13,525
1968	34	135,394	3,756	659,892	60,840
1969	62	185,612	1,506	485,213	22,802
1970	37	128,314	5,729	741,759	54,811
1971	82	110,604	3,571	259,757	63,835
1972	65	44,737	2,518	172,629	72,335
1973	18	27,593	393	71,265	13,223
1974	16	70,519	958	219,892	13,298
1975	12	60,735	843	239,833	11,044
1976	54	154,851	3,139	1,216,442	30,224
1977	54	213,166	2,810	880,460	38,941
1978	565	260,756	3,839	1,518,284	49,945
1979	184	268,632	25,624	1,011,529	35,094
1980	258	271,776	13,069	1,480,251	64,393
1981	245	434,900	15,317	1,620,971	121,713
1982	312	607,310	34,257	1,312,909	168,308
1983	721	445,325	24,651	590,071	113,317
1984	699	434,075	24,023	1,427,824	74,502
1985	419	644,053	33,862	789,965	92,061
1986	295	449,294	189,912	1,923,656	143,608
1987	216	216,937	18,193	445,767	105,560
1988	1,063	202,965	24,619	1,943,159	151,411



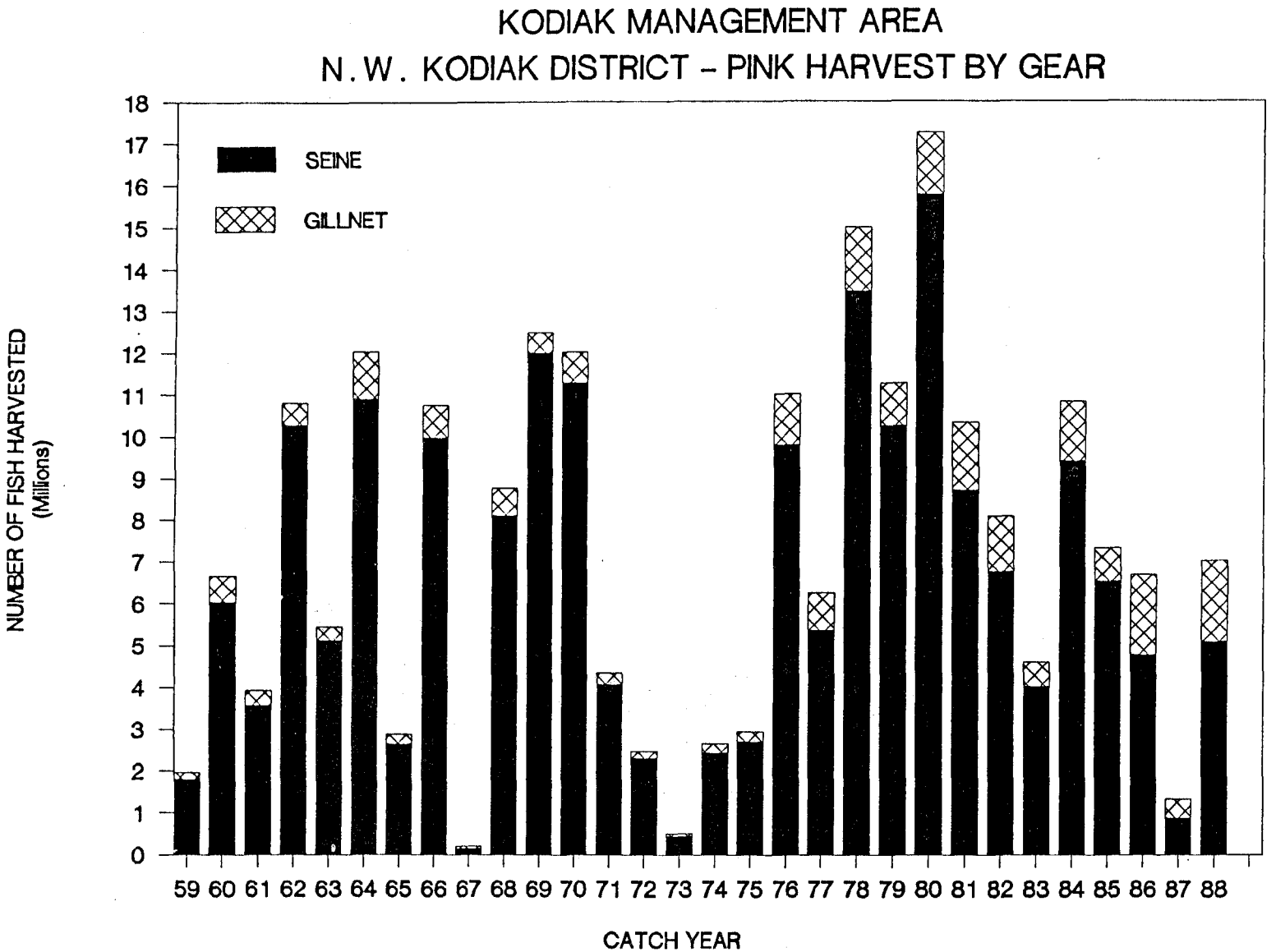
Appendix I.6. Historical chinook salmon harvest in the Northwest Kodiak District by gear type, Kodiak Management Area, 1959-1988.



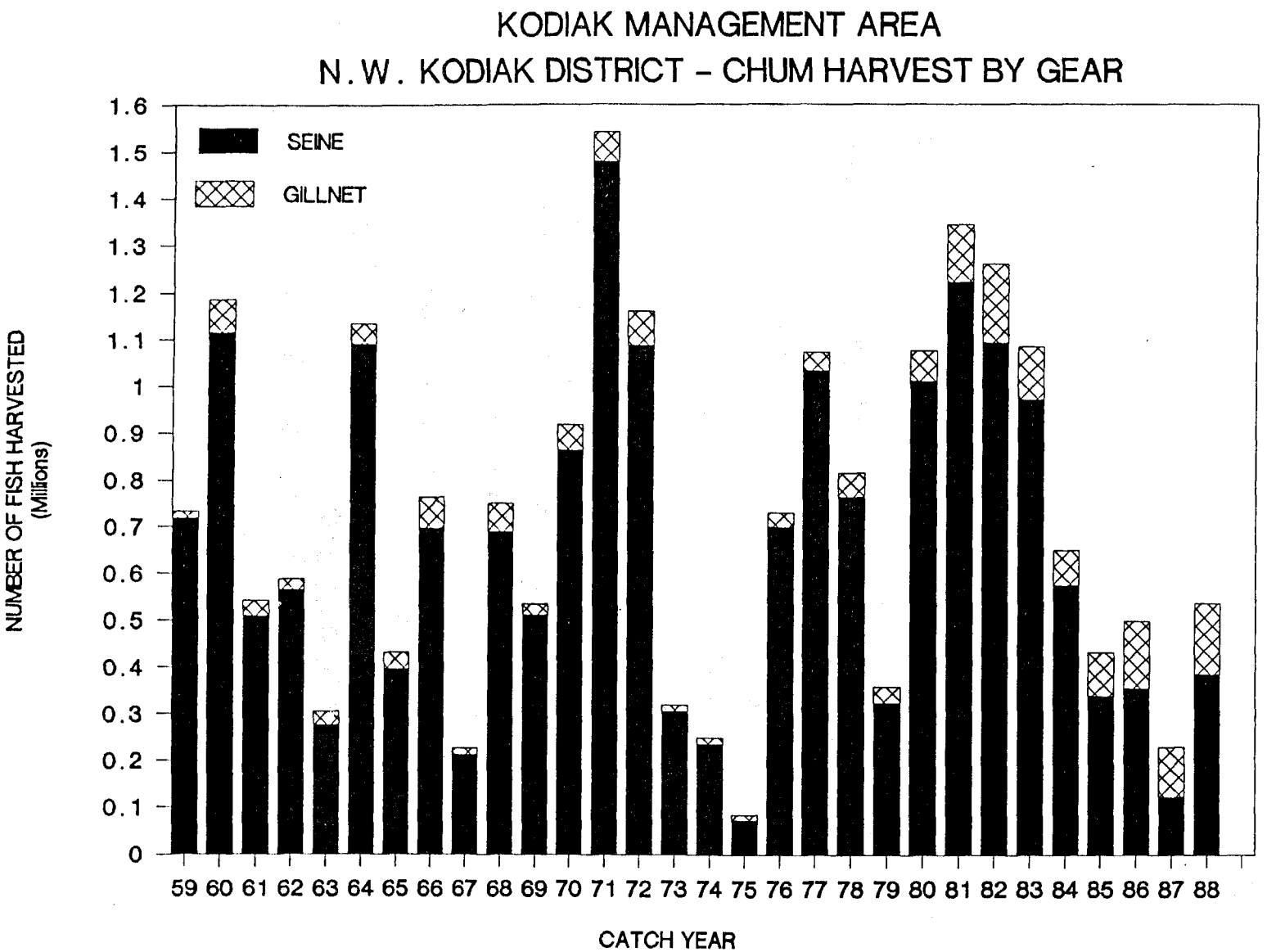
Appendix I.7. Historical sockeye salmon harvest in the Northwest Kodiak District by gear type, Kodiak Management Area, 1959-1988.



Appendix I.8. Historical coho salmon harvest in the Northwest Kodiak District by gear type, Kodiak Management Area, 1959-1988.

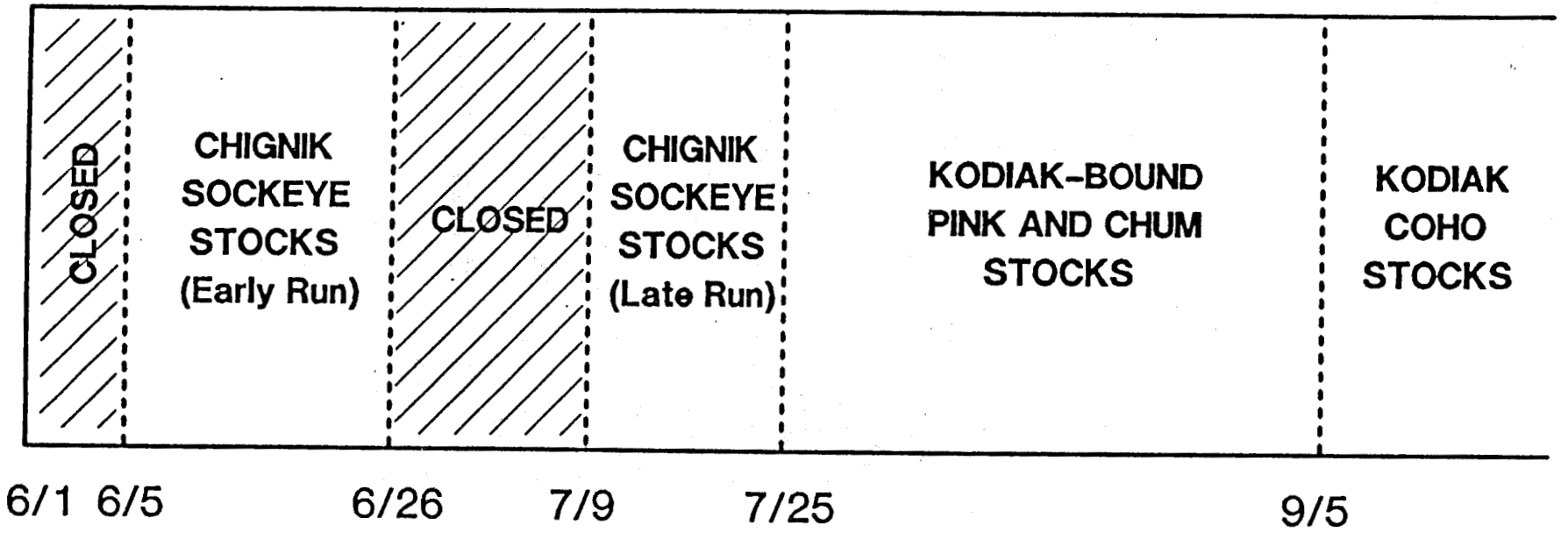


Appendix I.9. Historical pink salmon harvest in the Northwest Kodiak District by gear type, Kodiak Management Area, 1959-1988.



Appendix I.10. Historical chum salmon harvest in the Northwest Kodiak District by gear type, Kodiak Management Area, 1959-1988.

Appendix J.1. Cape Igvak management chronology, 1988.

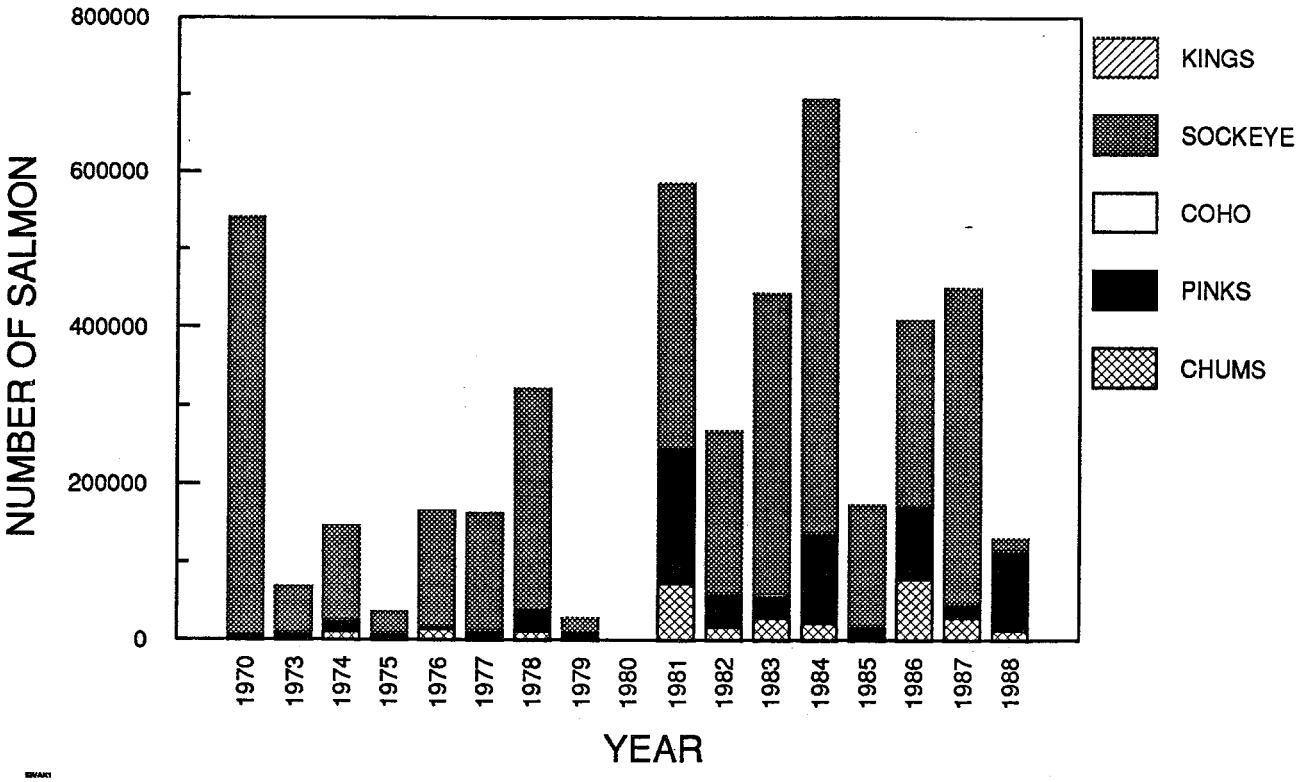


Appendix J.2. Cape Igvak management plan criteria for Chignik bound sockeye salmon, Kodiak Management Area, 1988.

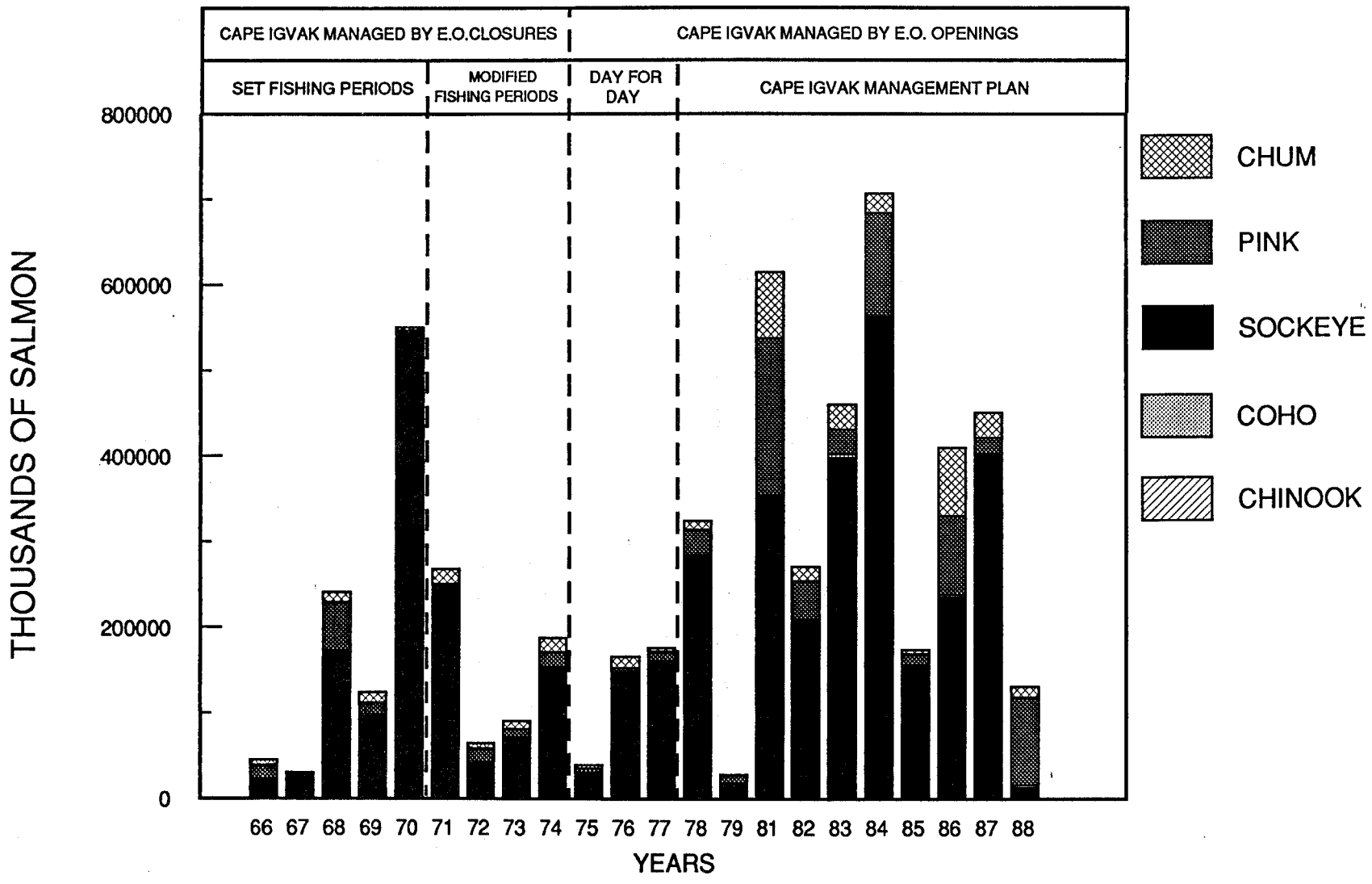
	Biological Requirements			Allocative Requirements		
	REGULATION 5AAC 18.360	ESCAPEMENT NEEDS Chignik (Early Run)	ESCAPEMENT NEEDS Chignik (Late Run)	REGULATION 5AAC 18.360	CHIGNIK Minimum Harvest	IGVAK %
	(a) (b) (c)	Through 6/30: 350,000 - 400,000	–	(a)	Expectations of < 600,000 Occur	CLOSED
	–	–	–	(b)	Expectations of < 600,000 Are In Doubt	OPEN THEN CLOSED
	(a) (b) (c)	–	Through 7/30: 195,000 - 200,000	(c)	Expectations of > 600,000 Occur	OPEN TO ACHIEVE 15 %
	–	–	–	(d)	Chignik Sockeye % Interception Calculations	80% of Catch At Igvak Are Chignik Sockeye
	–	–	–	(e)	ALLOCATION PERIOD:	6/5 - 7/25
	(f)	From June 26 - July 9 Cape Igvak Section Closed Until Chignik Late Run Evaluated		–	–	–
	–	–	–	(g)	–	ONE DAY ADVANCE NOTICE
TOTAL		400,000	250,000		600,000 Minimum	15 %

Appendix J.3. Cape Igvak fishery historical harvest by species in the Kodiak Management Area, 1970-1988.

Year	Chinook	Sockeye	Coho	Pink	Chum
1970	31	533,349	0	4,038	3,178
1973	70	58,008	4	7,475	2,435
1974	32	119,225	222	16,533	9,584
1975	1	26,554	28	5,573	3,282
1976	121	146,815	19	5,230	13,052
1977	28	149,487	5	8,799	3,993
1978	448	281,348	1,134	28,523	10,646
1979	2	17,437	365	9,212	1,303
1980	0	0	0	0	0
1981	153	336,783	562	174,482	73,740
1982	83	206,779	79	44,124	16,849
1983	427	383,156	3,720	27,994	28,512
1984	393	553,883	1,133	116,901	22,149
1985	158	154,534	875	13,532	4,740
1986	212	235,021	3,645	91,564	79,014
1987	457	401,016	1,012	18,930	28,840
1988	215	13,150	3,287	101,997	12,455



Appendix J.4. Cape Igvak fishery (June 1 - July 25) historical salmon harvest by species, Kodiak Management Area, 1970-1988.



Appendix J.5. Historical commercial salmon harvest for the Cape Igvak and Wide Bay Sections in the Kodiak Management Area, 1966-1988.

Appendix J.6. Cape Igvak fishery historical average salmon harvest by species and statistical week in the Kodiak Management Area, 1970-1988[a,b].

Stat. Week	Week Ending	Chinook	Sockeye	Coho	Pink	Chum	Targeted Mgmt. Species
23	6/06	0	16	0	5	0	
24	6/13	9	18,292	0	433	133	Chignik-Bound
25	6/20	65	68,297	29	5,338	1,263	Sockeye Stocks
26	6/27	14	53,247	66	4,497	2,420	
27	7/04	11	18,881	0	4,925	1,867	
28	7/11	13	15,348	23	4,959	2,982	
29	7/18	33	25,633	313	5,919	5,674	
30	7/25	31	15,890	483	13,435	4,339	
31	8/01	25	2,709	535	14,735	3,428	
32	8/08	17	919	539	51,347	5,143	Local Pink and
33	8/15	22	323	1,413	42,277	3,470	Chum Stocks
34	8/22	1	192	746	10,917	1,382	
35	8/29	0	0	0	11	276	
36	9/05	0	2	195	733	283	
37	9/12	0	0	82	5	205	Local Coho Stocks
38	9/19	0	7	0	0	0	(Terminal Fisheries)
39	9/26	0	0	0	0	0	
40	10/3	0	0	0	0	0	

a This data does not include 1971 and 1972 which were missing from ADF&G's data base when this table was built. Thus, the data in this table is for the 17 year period between 1970 and 19889 excluding the years 1971 and 1972.

b The statistical weeks identified in this table are a standardized set of weeks which best conform with existing managemewnt strategies; coincidentally these weeks will be the normal weeks used for the year 1992.

Appendix J.7. Percentage of intercepted Chignik bound sockeye salmon of total harvest, 1964-1988[a].

	Chignik Area		Cape Igvak[b]		Balboa-Stepovak[b,c]		
	Catch	%	Catch	%	Catch	%	Total Catch
1964[d]	557	90.57	15	2.44	43	7.00	615
1965[d]	600	89.94	11	1.65	56	8.40	667
1966[d]	220	87.99	18	7.21	12	4.81	250
1967[d]	462	91.48	23	4.56	20	3.96	505
1968[d]	977	82.53	136	11.48	71	5.99	1,184
1969[d]	394	78.96	98	19.63	7	1.41	499
1970[d]	1,326	72.79	427	23.46	68	3.74	1,821
1971[d]	1,016	76.97	253	19.97	51	3.86	1,320
1972[d]	379	86.32	42	9.58	18	4.10	439
1964-72 catch and percentage figures are total for the entire season. Catch figures and percentages after 1972 are only through July 25.							
1973[e]	769	89.00	57	6.60	38	4.40	864
1974[e]	530	73.61	121	16.81	69	9.58	720
1975[e]	116	81.69	24	16.90	2	1.41	142
1976[e]	792	82.93	118	12.36	45	4.71	955
1977[e]	1,547	90.36	129	7.54	36	2.10	1,712
1978[f,g]	1,454	85.48	225	13.23	22	1.29	1,701
1979[f,h]	795	91.80	14	1.62	57	6.58	866
1980[f,h]	670	91.28	0	0.00	64	8.72	734
1981[f,h]	1,606	79.86	282	14.02	123	6.12	2,011
1982[f,h]	1,251	84.47	166	11.21	64	4.32	1,481
1983[f,h]	1,451	72.70	318	15.93	227	11.37	1,996
1984[f,h]	2,474	73.94	449	13.42	423	12.64	3,346
1985[f,h]	696	80.18	124	14.29	48	5.53	868
1986[f,h]	1,457	82.64	188	10.66	118	6.69	1,763
1987[f,i]	1,660	78.04	321	15.09	146	6.86	2,127
1988[f,i]	679	95.77	11	1.55	19	2.68	709

-Continued-

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[a] Figures in thousands.

[b] The Cape Igvak and Balboa-Stepovak figures represent 80% of the total sockeye catches for those areas as it is estimated that roughly 80% of the sockeye caught in the Cape Igvak section and Balboa-Stepovak are destined for Chignik.

[c] Balboa-Stepovak includes Beaver Bay. This fishery is also referred to as the Southeastern District Mainland fishery.

[d] Prior to 1973, Cape Igvak and Balboa-Stepovak fisheries were regulated by set weekly fishing periods in the regulation book, usually 5 days per week. The situation was sometimes modified due to poor escapements at Chignik.

[e] During 1973 through 1977 all three fisheries were managed on a day for day basis.

[f] Beginning with the 1978 season, the current Cape Igvak Fishery Management Plan still in effect today was implemented. The Cape Igvak fishery was allocated 15 percent of the total Chignik destined sockeye catch.

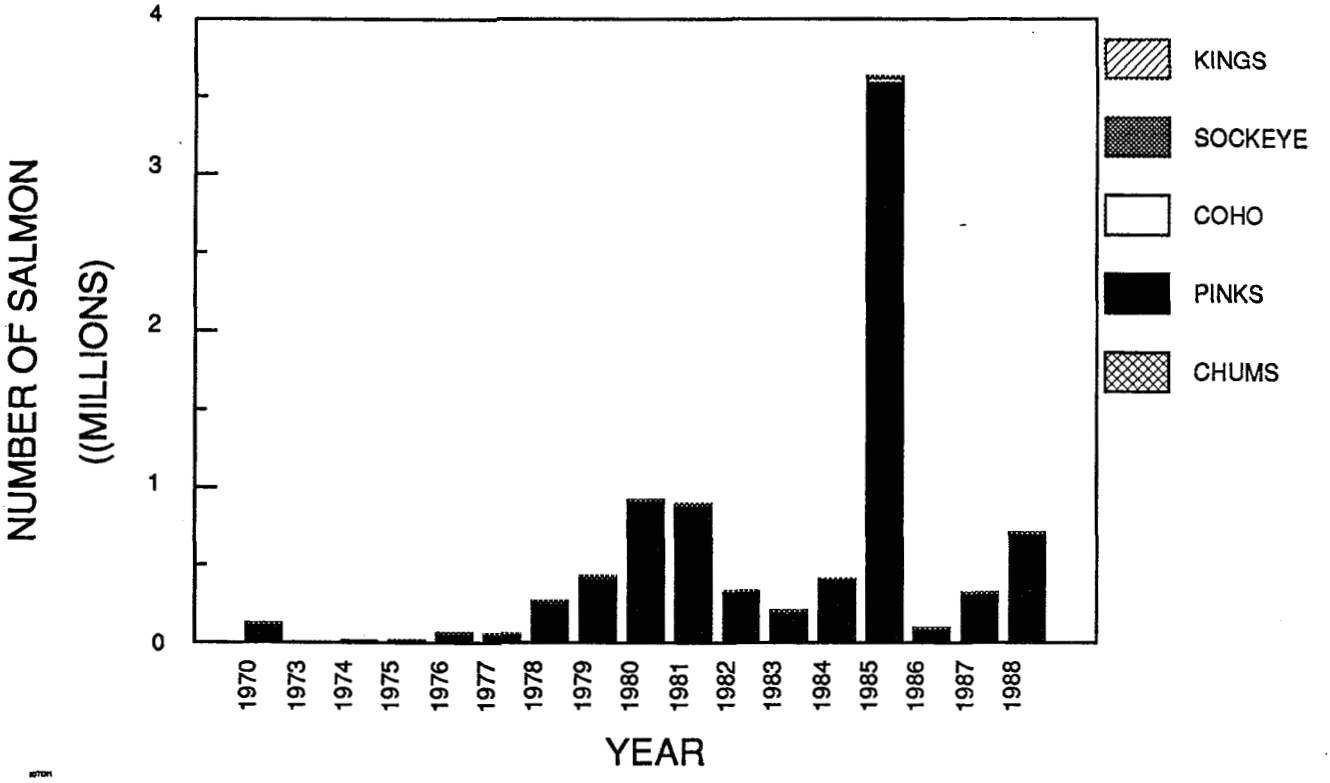
[g] During 1978, seining prior to July 11 was disallowed in Beaver, Balboa, and Stepovak Bays. The set gillnet fishery was allowed to fish 3 days per week thorough July 10 after which the fishery was managed on the basis of local stocks.

[h] During 1979-1984, 5 days per week were allowed at Balboa-Stepovak (including Beaver Bay) with a ceiling of 60,000 estimated Chignik destined sockeye, prior to July 11. If the Chignik Area sockeye catch was 1,000,000 or more before July 11, the 60,000 ceiling was to be dropped.

[i] Beginning in 1985, Balboa-Stepovak was placed on an allocation of 6.2 percent of the total estimated Chignik sockeye catch through July 25. After July 25, Balboa-Stepovak is managed on a local stock basis. The allocation was changed to an even 6 percent beginning in 1988. Seining is still not allowed prior to July 11.

Appendix K.1. Historical harvests of the Kitoi Bay hatchery fishery in the Kodiak Management Area, 1970-1988.

Year	Chinook	Sockeye	Coho	Pink	Chum
1970	11	7,182	2,607	105,345	10,989
1973	1	457	47	3,240	673
1974	0	258	12	8,794	485
1975	6	2,233	591	13,012	1,689
1976	40	5,154	720	53,783	4,765
1977	1	1,465	689	49,682	4,828
1978	133	14,850	4,352	234,409	13,674
1979	6	6,098	5,702	413,272	5,469
1980	4	3,098	12,483	886,837	19,602
1981	9	5,841	9,349	861,544	18,437
1982	23	2,546	10,147	314,897	6,889
1983	70	8,248	2,785	192,225	2,732
1984	11	2,828	6,063	400,072	3,117
1985	32	13,327	29,402	3,582,681	5,655
1986	3	1,502	1,399	89,544	1,368
1987	16	9,606	5,665	306,292	2,854
1988	23	4,993	8,108	693,750	4,001



Appendix K2. Kitoi Bay Hatchery fishery (July 6 - Sept 1) historical salmon harvest by species, Kodiak Management Area, 1970-1988.

Appendix K.3. Kitoi Bay hatchery summary of returns, Kodiak Management Area, 1988[a].

	Total Harvest		Hatchery Contribution[b,c] Est. Percent of Total		Hatchery Contribution[b,c] Est. Number of Fish	
	Pink	Chum	Pink	Chum	Pink	Chum
Common Property Harvest						
Kitoi Bay Section	126	23	100%	100%	126	23
Izhut Bay Section	113,693	0	90%	100%	102,324	0
N.E. Kodiak Section	12,794	0	60%	100%	7,676	0
Duck Bay Section	281,137	0	70%	100%	196,796	0
Cost/Recovery/Harvest	298,439	0	100%	100%	298,439	0
Broodstock/Escapement	140,686	4,022	100%	100%	140,686	4,022
TOTAL	**846,.875**	**4,989**	-	-	**746,047**	**4,989**

[a] Source of data in this table: Tim Joyce, Kitoi Hatchery Manager, memo dated 9/29/88.

[b] The total **1988 pink salmon hatchery return** of 746,047 adults (composed of age 2 year old fish) resulted from a fry release in the spring of 1987 which totaled 90,500,408 fry. This represents an overall survival rate for release fry to adult of .82%.

[c] The total **1988 chum salmon hatchery return** of 4,989 adults (composed of ages 3, 4, and 5 year old fish) resulted from fry releases of 630,422 fry in 1983 (the age 5 adults); 791,176 fry in 1984 (the age 4 adults); and 414,232 fry in 1985 (the age 3 adults). The dominant age of returning adults is 4 year old fish.

Appendix L.1. Historical subsistence salmon fishing locations in the Kodiak Management Area, 1988.

AFOGNAK DISTRICT

S.W.Afognak Section
- Malina Bay
- Malina Beach

N.W. Afognak Section
- Blue Fox Bay
- Red Fox Bay

Shuyak Island Section
- Big Bay

Perenosa Bay Section
- Paul's Bay
- Discoverer Bay

N.E. Afognak Section
- Seal Bay

Izhut Bay Section
- Saposa Bay
- Ruth Bay
- Izhut Bay

Kitoi Bay Section
- Little Kitoi Bay

Duck Bay Section
- Duck Bay
- Little Afognak

S.E. Afognak Section
- Danger Bay (Kazakof)
- Marka Bay
- Litnik

Raspberry Straits Section
- Raspberry Straits
- Whale Island
- Selief
- Muskomee

N.W. KODIAK DISTRICT

Central Section
- Ouzinkie Narrows
- Soldier's Bay
- Doctor River
- Camel Rock
- Shakmanoff
- Settler's Cove
- Whale Pass
- Dry Spruce Bay
- Kupreanof Straits
- Onion Bay
- Viekoda Bay
- Village Islands
- Rock Point
- Little River
- Larsen Bay
- 7-Mile Beach

North Cape Section
- Monk's Lagoon
- Sunny Cove
- Ouzinkie Harbor
- Pineapple Cove
- Spruce Island

Anton Larsen Section
- Anton Larsen Bay

Sheratin Section
- Sheratin Bay

Kizhuyak Section
- Barabara Cove
- Kizhuyak Bay

Terror Bay Section
- Terror Bay

Inner Uganik Section
- Mush Bay
- Inner Uganik Bay

- continued -

[1/] Harvest locations are taken from information recorded on returned subsistence permits for the years 1960 - 1988.

N.W. DISTRICT (Continued)

Spiridon Bay Section
- Spiridon Bay

Zachar Bay Section
- Zachar Bay

Uyak Bay Section
- Brown's Lagoon
- Inner Uyak Bay

S.W. KODIAK DISTRICT

Inner Karluk Section
- Karluk Lagoon

Sturgeon Section
- Sturgeon Lagoon

Halibut Bay Section
- Halibut Bay (Carmel)

Outer Ayakulik Section
- Bumble Bay

ALITAK BAY DISTRICT

Cape Alitak Section
- Tanner's Head

Humpy/Deadman Section
- Deadman Bay
- Inner Alitak Bay

Moser/Olga Bay Section
- Akhiok Beaches
- Moser Bay
- Chip Cove
- Lower Olga Bay
- Dog Salmon Flats
- Horse Marine Lagoon

Inner Akalura Section
- Akalura Lagoon

Inner Upper Station Section
- Upper Station

EASTSIDE KODIAK DISTRICT

Sitkalidak Section
- Ocean Beach Creek
- Three Saints Bay
- Barling Bay
- Old Harbor
- Midway Cr. (Big Cr.)
- Kiliuda Bay

Inner Ugak Section
- Saltery Cove
- Eagle Harbor
- Portage Creek
- Inner Ugak Bay

Outer Ugak Section
- Pasagshak Bay

N.E. KODIAK DISTRICT

Outer Chiniak Section
- Chiniak Cr. Beach
- Roslyn Beach

Inner Chiniak Section
- Brookers Lgn. (Jakes)
- Kalsin Bay Beaches
- Mayflower Beach
- Middle Bay Beaches

Buskin River Section
- Cliff Point Beaches
- Women's Bay Beaches
- Buskin River Beach

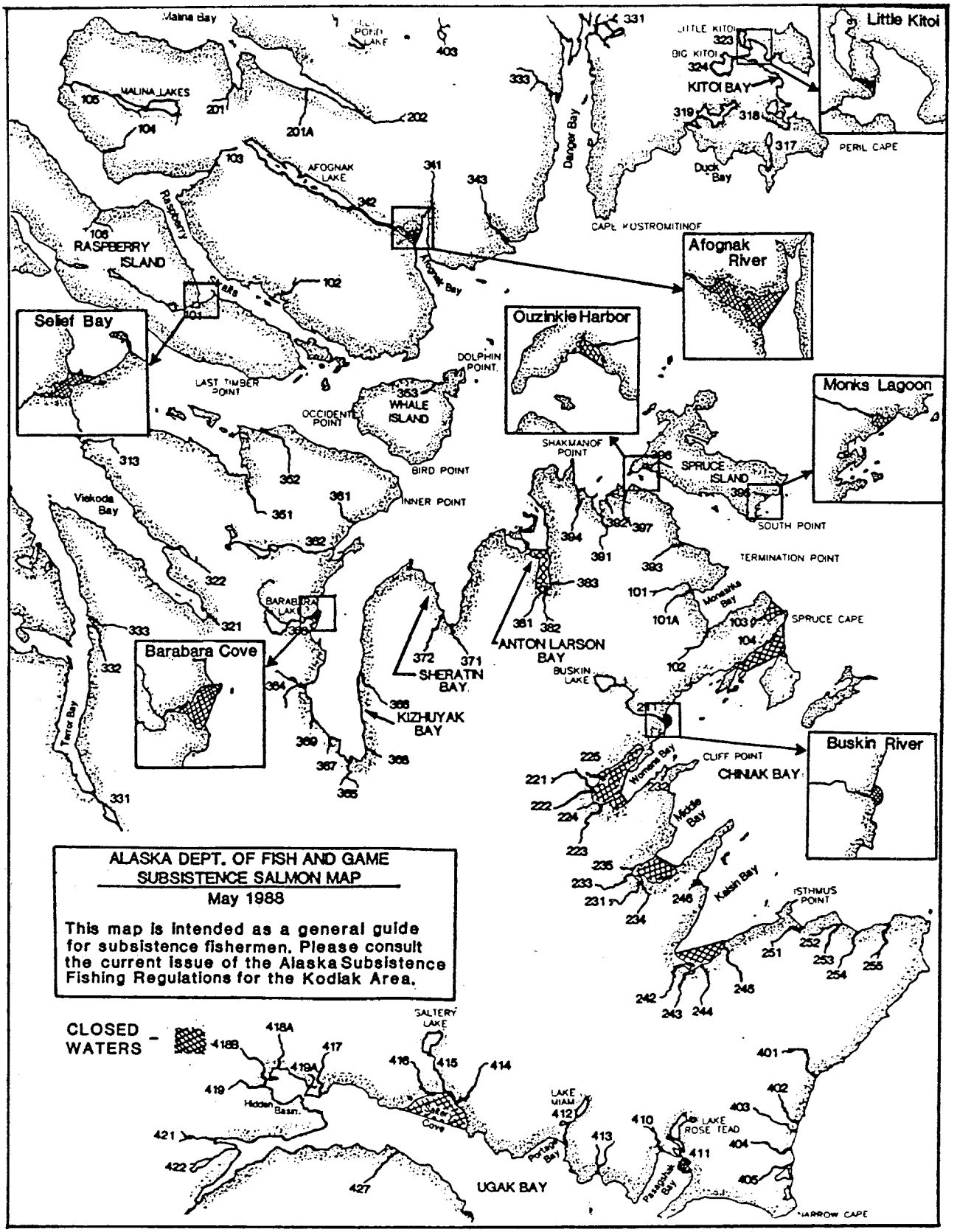
Monashka-Mill Bay Section
- Monashka Bay

MAINLAND DISTRICT

Outer Kukak Section
- Kaflia Bay

Dakavak Section
- Dakavak Bay

Appendix L.2. Map of subsistence locations, Kodiak Area, 1988.



Appendix L.3. Subsistence salmon harvest by species and geographic location in the Kodiak Management Area, 1988.

Reported Harvest Location	Chinook	Sockeye	Coho	Pink	Chum	Total
Uncertain	0	30	18	6	4	58
Kizhuyak Section						
Ouzinkie Narrows	0	154	2	2	0	158
Monk's Lagoon	0	0	37	9	9	37
Spruce Island	0	89	109	8	0	206
Camel Rock	0	0	14	0	0	14
Shakmanof	0	51	0	25	20	96
Anton Larsen Bay	0	5	4	0	0	9
Sheratin Bay	0	68	26	14	0	108
Kizhuyak	0	59	44	26	70	199
Barbara Cove	0	740	53	33	1	827
Subtotal	**0**	**1,166**	**289**	**108**	**91**	**1,654**
Chiniak Section						
Monashka Bay	0	40	110	88	2	20
Buskin River	30	3,134	1,505	313	55	5,037
Woman's Bay	0	0	81	9	25	115
Cliff Point	0	13	17	4	2	36
Kalsin Bay	0	61	209	53	16	339
Roslyn Beach	1	0	311	44	37	393
Chiniak	0	0	10	0	0	10
Subtotal	**31**	**3,248**	**2,243**	**511**	**137**	**6,170**
Ugak Bay Section						
Saltery Cove	3	219	17	19	2	260
Pasagshak	0	84	0	11	9	104
Portage Bay	1	17	7	0	1	26
Subtotal	**4**	**320**	**24**	**30**	**12**	**290**

-Continued-

Reported Harvest Location	Chinook	Sockeye	Coho	Pink	Chum	Total
Sitkalidak Section						
Midway Creek (Big Creek)	0	22	308	0	12	342
Old Harbor	0	0	155	325	25	505
Barling Bay	0	0	0	25	0	25
Sitkalidak Island	0	0	0	50	0	50
Subtotal	**0**	**22**	**463**	**400**	**37**	**922**
Alitak Bay Section						
Olga Bay	0	189	9	5	3	206
Moser Bay	0	1,018	15	14	16	1,063
Deadman's Bay	0	118	0	0	0	118
Alitak Unknown	1	31	22	0	0	54
Subtotal	**1**	**1,356**	**46**	**19**	**19**	**1,441**
Sturgeon River Section						
Halibut Bay	0	0	50	0	0	50
Subtotal	**0**	**0**	**50**	**0**	**0**	**50**
Karluk Section						
Karluk	5	160	10	0	0	175
Subtotal	**5**	**160**	**10**	**0**	**0**	**175**
Uyak Bay Section						
Uyak Bay	0	129	29	6	0	164
Spiridon Bay	0	10	2	2	5	19
Zachar Bay	0	2	31	1	2	36
Brown's Lagoon	0	0	1	0	0	1
Subtotal	**0**	**141**	**63**	**9**	**7**	**220**

-Continued-

Reported Harvest Location	Chinook	Sockeye	Coho	Pink	Chum	Total
Uganik Bay Section						
Kupreanof	0	72	5	46	3	126
Onion Bay	0	115	16	22	2	155
Viekoda Bay	0	12	3	5	0	20
Uganik Bay	10	472	144	34	34	694
Village Islands	1	34	0	0	0	35
Subtotal	**11**	**705**	**168**	**107**	**39**	**1,030**
Afognak Section						
Uncertain	0	27	0	0	0	27
Afognak Bay	54	2,253	359	27	13	2,706
Raspberry Straits	1	78	11	3	0	93
Selief	0	0	26	0	0	26
Malina Bay	0	1	18	0	0	19
Persnosa Bay	0	0	0	17	0	17
Red Fox Bay	0	0	38	0	0	38
Pauls Bay	0	143	0	0	0	143
Pauls Lake	0	0	6	0	0	6
Kitoi Bay	0	7	1	0	0	8
Little Afognak	0	392	12	0	0	404
Duck Bay	1	20	51	0	2	74
Danger Bay	0	0	20	0	0	20
Marka Bay	0	50	161	34	5	250
Subtotal	**56**	**2,971**	**703**	**81**	**20**	**3,831**
Mainland Section						
Uncertain	0	33	17	0	0	50
Subtotal	**0**	**33**	**17**	**0**	**0**	**50**
GRAND TOTALS	**108**	**10,152**	**4,094**	**1,248**	**366**	**15,991**

Appendix L.4. Subsistence fishery summary for the Kodiak Management Area, 1962-1988[a].

YEAR	PERMITS ISSUED	PERMITS RETURNED	%	Catch					
				Chinook	Sockeye	Coho	Pink	Chum	Total
1962	74	13	17.57%	0	0	433	397	20	850
1963	74	15	20.27%	0	297	576	836	195	1,904
1964	43	9	20.93%	6	332	184	88	71	681
1965	67	7	10.45%	2	19	318	244	12	595
1966	48	13	27.08%	0	295	331	334	393	1,353
1967	84	29	34.52%	2	1,306	571	894	344	3,117
1968	132	28	21.21%	0	658	433	529	45	1,665
1969	242	30	12.40%	1	481	338	620	30	1,470
1970	213	49	23.00%	1	959	939	797	265	2,961
1971	267	131	49.06%	5	3,442	1,720	1,276	472	6,915
1972	329	176	53.50%	11	3,633	1,531	2,516	2,729	10,420
1973	400	149	37.25%	7	4,453	2,289	1,393	1,166	9,308
1974	367	90	24.52%	1	1,909	846	1,094	128	3,978
1975	508	90	17.72%	1	1,141	922	947	221	3,232
1976	536	243	45.34%	4	4,338	962	2,275	370	7,949
1977	739	451	61.03%	54	8,119	2,508	2,849	317	13,847
1978	860	539	62.67%	50	7,239	3,699	2,747	572	14,307
1979	1,085	697	64.24%	111	10,376	3,840	3,300	333	17,960
1980	1,239	756	61.02%	67	13,746	4,407	2,755	566	21,541
1981	1,166	733	62.86%	44	12,756	3,729	2,278	470	19,277
1982	1,276	993	77.82%	110	16,615	7,192	3,558	667	28,142
1983	1,307	1,082	82.79%	111	15,526	6,283	2,536	800	25,256
1984	1,240	1,061	85.56%	265	17,620	5,808	1,877	720	26,290
1985	1,476	1,196	81.03%	172	16,231	8,873	2,756	855	28,887
1986	1,244	1,049	84.32%	91	14,453	7,087	2,371	605	24,607
1987	1,124	969	86.21%	162	11,562	6,149	2,195	1,061	21,129
1988	1,098	663	60.38%	108	10,043	4,052	1,262	366	15,831
TOTAL	18,415	11,380		1,386	177,549	76,020	44,724	13,793	313,472
AVERAGE	658	406		51	6,576	2,816	1,656	511	11,610
% OF TOTAL				0.44%	56.64%	24.25%	14.27%	4.40%	100.00%

[a]Catch is from returned permits only.

Appendix L.5. Subsistence salmon harvest by community of residence in the Kodiak Management Area, 1986-1988.

City	1986	1987	1988
AKHIOK	655	355	43
ANCHORAGE	516	196	25
AUKE BAY	0	23	0
CHINIAK	208	296	316
DOUGLAS	30	50	75
EAGLE RIVER	0	18	0
HOMER	39	2	0
INDIAN	0	4	0
KARLUK	821	0	175
KASILOF	4	37	0
KITOI BAY	7	0	0
KODIAK	16,534	13,478	11,402
LARSEN BAY	862	1,014	307
MOSER BAY	0	77	8
OLD HARBOR	896	1,224	945
OUZINKIE	1,449	1,492	915
PALMER	22	24	6
PLEASANT HARBOR	10	6	15
PORT BAILEY	36	126	123
PORT LIONS	2,075	2,315	1,252
PORT WILLIAMS	133	0	23
SEAL BAY	70	0	143
SOLDOTNA	0	45	0
TRAPPER CREEK	0	23	0
UGANIK BAY	48	50	50
VIA KODIAK	141	4	73
WASILLA	14	0	0
WEST POINT	0	270	175
UNKNOWN	26	0	20
TOTAL	**24,607**	**21,229**	**15,991**

Appendix L.6. Subsistence salmon fishing regulations, Kodiak Management Area, 1988.

ARTICLE 10—KODIAK AREA.

5 AAC 01.550. DESCRIPTION OF KODIAK AREA. The Kodiak Area includes all waters of Alaska south of a line extending east from Cape Douglas (58°52′ N. lat.), west of 150° W. long., north of 55°30′ N. lat.; and east of the longitude of the southern entrance of Imuya Bay near Kilokak Rocks (156°20′13″ W. long.).

5 AAC 01.510. FISHING SEASONS. (a) Salmon may be taken for subsistence purposes from 6:00 a.m. until 9:00 p.m. from January 1 through December 31, with the following exceptions:

(1) from June 1 through September 15, salmon seine vessels may not be used to take subsistence salmon for 24 hours before, during, and for 24 hours after any open commercial salmon fishing period;

(2) from June 1 through September 15, purse seine vessels may be used to take salmon only with gill nets and no other type of salmon gear may be on board the vessel.

(c) Fish other than salmon may be taken at any time unless restricted by the terms of a subsistence fishing permit.

5 AAC 01.520. LAWFUL GEAR AND GEAR SPECIFICATIONS. (a) Unless restricted by this section or under the terms of a subsistence fishing permit, fish may be taken by gear listed in sec. 10(a) of this chapter.

(b) Salmon may be taken only by gill net and seine.

(c) Halibut may be taken only by a single hand-held line with not more than two hooks attached to it.

(d) Subsistence fishermen must be physically present at the net at all times the net is being fished.

5 AAC 01.525. WATERS CLOSED TO SUBSISTENCE FISHING. The following locations are closed to the subsistence taking of salmon:

(1) all waters of Mill Bay and all those waters bounded by a line from Spruce Cape to the northernmost point of Woody Island, then to the northernmost point of Holiday Island, then to a point on Near Island opposite the Kodiak small boat harbor entrance and then to the small boat harbor entrance;

(2) all freshwater systems of Little Afognak River and Portage Creek drainage in Discoverer Bay;

(4) all waters closed to commercial salmon fishing in the Barbara Cove, Chiniak Bay, Saltery Cove, Pasagshak Bay, Monashka Bay and Anton Larsen Bay as described in 5 AAC 18.350, and all waters closed to commercial salmon fishing within 100 yards of the terminus of Selief Bay Creek and north and west of a line from the tip of Last Point to the tip of River Mouth Point in Afognak Bay;

(6) all waters 300 yards seaward of the terminus of Monks Creek;

(7) from August 15 through September 30, all waters 500 yards seaward of the terminus of Little Kitoi Creek.

(8) all freshwater systems of Afognak Island;

(9) all waters of Ouzinkie Harbor north of a line from 57°55′10″ N. lat., 152°36′ W. long. to 57°55′03″ N. lat., 152°29′20″ W. long.

5 AAC 01.530. SUBSISTENCE FISHING PERMITS. (a) A subsistence fishing permit is required for taking salmon, trout and char for subsistence purposes. A subsistence fishing permit is required for taking herring and bottomfish for subsistence purposes during the commercial herring sac roe season from May 1 through June 30.

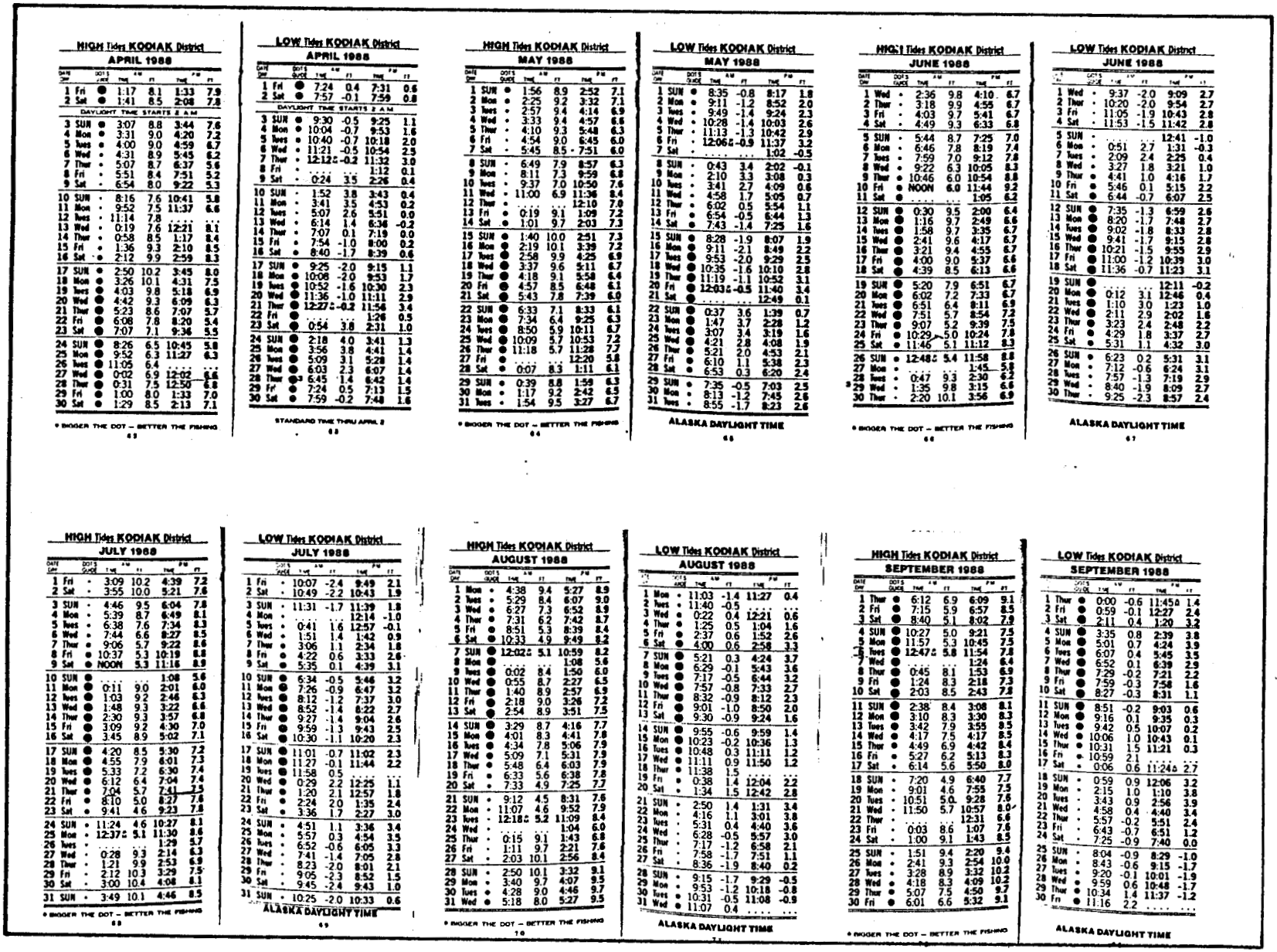
(b) A subsistence salmon fishing permit allows the holder to take 25 salmon plus an additional 25 salmon for each member of the same household whose names are listed on the permit. An additional permit may be obtained if it can be shown that more fish are needed.

(c) All subsistence fishermen shall keep a record of the number of subsistence fish taken each year. The number of subsistence fish taken shall be recorded on the reverse side of the permit. The record must be completed immediately upon landing subsistence caught fish and must be returned to the local representative of the department by February 1 of the year following the year the permit was issued.

5 AAC 01.535. LIMITATIONS ON PARTICIPATION IN SUBSISTENCE FINFISH FISHERIES. Only those residents domiciled in the Kodiak Island Borough, except those residing on the Kodiak Coast Guard Base, may take salmon in the Kodiak Area. This restriction does not apply to the Mainland District, as described in 5 AAC 18.200.

5 AAC 01.545. SUBSISTENCE BAG AND POSSESSION LIMITS. The daily bag limit for halibut is two fish and the possession limit is two daily bag limits. No person may possess sport taken and subsistence taken halibut on the same day.

Appendix M.1. Tide tables for the Kodiak Management Area, 1988.



HIGH Tides KODIAK District
APRIL 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Fri	●	1:17	8.1	1:33	7.9
2	Sat	●	1:41	8.5	2:08	7.8
	DAYLIGHT TIME STARTS 2 A.M.					
3	SUN	●	3:07	8.8	3:44	7.6
4	Mon	●	3:31	9.0	4:20	7.2
5	Tues	●	4:00	9.0	4:59	6.7
6	Wed	•	4:31	8.9	5:45	6.2
7	Thur	•	5:07	8.7	6:37	5.6
8	Fri	•	5:51	8.4	7:51	5.2
9	Sat	•	6:54	8.0	9:22	5.3
10	SUN	•	8:16	7.6	10:41	5.8
11	Mon	•	9:52	7.5	11:37	6.6
12	Tues	•	11:14	7.8	.....	...
13	Wed	•	0:19	7.6	12:21	8.1
14	Thur	•	0:58	8.5	1:17	8.4
15	Fri	•	1:36	9.3	2:10	8.5
16	Sat	•	2:12	9.9	2:59	8.3
17	SUN	●	2:50	10.2	3:45	8.0
18	Mon	●	3:26	10.1	4:31	7.5
19	Tues	●	4:03	9.8	5:18	6.9
20	Wed	●	4:42	9.3	6:09	6.3
21	Thur	●	5:23	8.6	7:07	5.7
22	Fri	●	6:08	7.8	8:20	5.4
23	Sat	●	7:07	7.1	9:36	5.5
24	SUN	●	8:26	6.5	10:45	5.8
25	Mon	●	9:52	6.3	11:27	6.3
26	Tues	●	11:05	6.4	.....	...
27	Wed	●	0:02	6.9	12:02	6.6
28	Thur	●	0:31	7.5	12:50	6.8
29	Fri	●	1:00	8.0	1:33	7.0
30	Sat	●	1:29	8.5	2:13	7.1

● BIGGER THE DOT – BETTER THE FISHING

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LOW Tides KODIAK District
APRIL 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Fri	●	7:24	0.4	7:31	0.6
2	Sat	●	7:57	-0.1	7:59	0.8
	DAYLIGHT TIME STARTS 2 A.M.					
3	SUN	●	9:30	-0.5	9:25	1.1
4	Mon	●	10:04	-0.7	9:53	1.6
5	Tues	●	10:40	-0.7	10:18	2.0
6	Wed	●	11:21	-0.5	10:54	2.5
7	Thur	•	12:12	-0.2	11:32	3.0
8	Fri	•	.....	...	1:12	0.1
9	Sat	•	0:24	3.5	2:26	0.4
10	SUN	•	1:52	3.8	3:43	0.4
11	Mon	•	3:41	3.5	4:53	0.2
12	Tues	•	5:07	2.6	5:51	0.0
13	Wed	•	6:14	1.4	6:36	-0.2
14	Thur	•	7:07	0.1	7:19	0.0
15	Fri	•	7:54	-1.0	8:00	0.2
16	Sat	•	8:40	-1.7	8:39	0.6
17	SUN	●	9:25	-2.0	9:15	1.1
18	Mon	●	10:08	-2.0	9:53	1.7
19	Tues	●	10:52	-1.6	10:30	2.3
20	Wed	●	11:36	-1.0	11:11	2.9
21	Thur	●	12:27	-0.2	11:56	3.4
22	Fri	●	.....	...	1:26	0.5
23	Sat	●	0:54	3.8	2:31	1.0
24	SUN	●	2:18	4.0	3:41	1.3
25	Mon	●	3:56	3.8	4:41	1.4
26	Tues	●	5:09	3.1	5:28	1.4
27	Wed	●	6:03	2.3	6:07	1.4
28	Thur	●	6:45	1.4	6:42	1.4
29	Fri	●	7:24	0.5	7:13	1.5
30	Sat	●	7:59	-0.2	7:48	1.6

STANDARD TIME THRU APRIL 2

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HIGH Tides KODIAK District
MAY 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	SUN	●	1:56	8.9	2:52	7.1
2	Mon	●	2:25	9.2	3:32	7.1
3	Tues	•	2:57	9.4	4:14	6.9
4	Wed	•	3:33	9.4	4:57	6.6
5	Thur	•	4:10	9.3	5:48	6.3
6	Fri	•	4:54	9.0	6:45	6.0
7	Sat	•	5:45	8.5	7:51	6.0
8	SUN	•	6:49	7.9	8:57	6.3
9	Mon	•	8:11	7.3	9:59	6.8
10	Tues	•	9:37	7.0	10:50	7.6
11	Wed	•	11:00	6.9	11:36	8.4
12	Thur	•	.....	...	12:10	7.0
13	Fri	●	0:19	9.1	1:09	7.2
14	Sat	●	1:01	9.7	2:03	7.3
15	SUN	●	1:40	10.0	2:51	7.3
16	Mon	●	2:19	10.1	3:39	7.2
17	Tues	●	2:58	9.9	4:25	6.9
18	Wed	●	3:37	9.6	5:11	6.7
19	Thur	●	4:18	9.1	5:58	6.4
20	Fri	●	4:57	8.5	6:48	6.1
21	Sat	●	5:43	7.8	7:39	6.0
22	SUN	●	6:33	7.1	8:33	6.1
23	Mon	●	7:34	6.4	9:25	6.3
24	Tues	●	8:50	5.9	10:11	6.7
25	Wed	●	10:09	5.7	10:53	7.2
26	Thur	●	11:18	5.7	11:28	7.7
27	Fri	●	.....	...	12:20	8.2
28	Sat	●	0:07	8.3	1:11	8.1
29	SUN	●	0:39	8.8	1:58	8.3
30	Mon	●	1:17	9.2	2:42	8.5
31	Tues	•	1:54	9.5	3:27	8.7

● BIGGER THE DOT – BETTER THE FISHING

66

LOW Tides KODIAK District
MAY 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	SUN	●	8:35	-0.8	8:17	1.8
2	Mon	●	9:11	-1.2	8:52	2.0
3	Tues	●	9:49	-1.4	9:24	2.3
4	Wed	●	10:28	-1.4	10:03	2.6
5	Thur	•	11:13	-1.3	10:42	2.9
6	Fri	•	12:06	-0.9	11:37	3.2
7	Sat	•	.....	...	1:02	-0.5
8	SUN	•	0:43	3.4	2:02	-0.1
9	Mon	•	2:10	3.3	3:08	0.3
10	Tues	•	3:41	2.7	4:09	0.6
11	Wed	•	4:58	1.7	5:05	0.7
12	Thur	●	6:02	0.5	5:54	1.1
13	Fri	●	6:54	-0.5	6:44	1.3
14	Sat	●	7:43	-1.4	7:25	1.6
15	SUN	●	8:28	-1.9	8:07	1.9
16	Mon	●	9:11	-2.1	8:49	2.2
17	Tues	●	9:53	-2.0	9:29	2.5
18	Wed	●	10:35	-1.6	10:10	2.8
19	Thur	●	11:19	-1.1	10:52	3.1
20	Fri	●	12:03	-0.5	11:40	3.4
21	Sat	●	.....	...	12:49	0.1
22	SUN	●	0:37	3.6	1:39	0.7
23	Mon	●	1:47	3.7	2:28	1.2
24	Tues	●	3:07	3.4	3:19	1.6
25	Wed	●	4:21	2.8	4:08	1.9
26	Thur	●	5:21	2.0	4:53	2.1
27	Fri	●	6:10	1.1	5:38	2.3
28	Sat	●	6:53	0.3	6:20	2.4
29	SUN	●	7:35	-0.5	7:03	2.5
30	Mon	●	8:13	-1.2	7:45	2.6
31	Tues	•	8:55	-1.7	8:23	2.6

ALASKA DAYLIGHT TIME

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HIGH Tides KODIAK District
JUNE 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Wed	•	2:36	9.8	4:10	6.7
2	Thur	•	3:18	9.9	4:55	6.7
3	Fri	•	4:03	9.7	5:41	6.7
4	Sat	•	4:49	9.3	6:33	6.8
5	SUN	•	5:44	8.7	7:25	7.0
6	Mon	•	6:46	7.8	8:19	7.4
7	Tues	•	7:59	7.0	9:12	7.8
8	Wed	•	9:22	6.3	10:05	8.3
9	Thur	●	10:46	6.0	10:54	8.8
10	Fri	●	NOON	6.0	11:44	9.2
11	Sat	●	.....	...	1:05	6.2
12	SUN	●	0:30	9.5	2:00	6.4
13	Mon	●	1:16	9.7	2:49	6.6
14	Tues	●	1:58	9.7	3:35	6.7
15	Wed	●	2:41	9.6	4:17	6.7
16	Thur	●	3:21	9.4	4:55	6.7
17	Fri	●	4:00	9.0	5:37	6.6
18	Sat	●	4:39	8.5	6:13	6.6
19	SUN	●	5:20	7.9	6:51	6.7
20	Mon	●	6:02	7.2	7:33	6.7
21	Tues	●	6:51	6.4	8:11	6.9
22	Wed	●	7:51	5.7	8:54	7.2
23	Thur	●	9:07	5.2	9:39	7.5
24	Fri	●	10:29	5.0	10:24	7.8
25	Sat	●	11:46	5.1	11:12	8.3
26	SUN	●	12:48	5.4	11:58	8.8
27	Mon	•	.....	...	1:45	5.8
28	Tues	•	0:47	9.3	2:30	6.2
29	Wed	•	1:35	9.8	3:15	6.6
30	Thur	•	2:20	10.1	3:56	6.9

● BIGGER THE DOT – BETTER THE FISHING

66

LOW Tides KODIAK District
JUNE 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Wed	•	9:37	-2.0	9:09	2.7
2	Thur	•	10:20	-2.0	9:54	2.7
3	Fri	•	11:05	-1.9	10:43	2.8
4	Sat	•	11:53	-1.5	11:42	2.8
5	SUN	•	.....	...	12:41	-1.0
6	Mon	•	0:51	2.7	1:31	-0.3
7	Tues	•	2:09	2.4	2:25	0.4
8	Wed	•	3:27	1.8	3:21	1.0
9	Thur	●	4:41	1.0	4:16	1.7
10	Fri	●	5:46	0.1	5:15	2.2
11	Sat	●	6:44	-0.7	6:07	2.5
12	SUN	●	7:35	-1.3	6:59	2.6
13	Mon	●	8:20	-1.7	7:48	2.7
14	Tues	●	9:02	-1.8	8:33	2.8
15	Wed	●	9:41	-1.7	9:15	2.8
16	Thur	●	10:21	-1.5	9:55	2.9
17	Fri	●	11:00	-1.2	10:39	3.0
18	Sat	●	11:36	-0.7	11:23	3.1
19	SUN	●	.....	...	12:11	-0.2
20	Mon	●	0:12	3.1	12:46	0.4
21	Tues	●	1:10	3.0	1:23	1.0
22	Wed	●	2:11	2.9	2:02	1.6
23	Thur	●	3:23	2.4	2:48	2.2
24	Fri	●	4:29	1.8	3:37	2.7
25	Sat	●	5:31	1.1	4:32	3.0
26	SUN	•	6:23	0.2	5:31	3.1
27	Mon	•	7:12	-0.6	6:24	3.1
28	Tues	•	7:57	-1.3	7:19	2.9
29	Wed	•	8:40	-1.9	8:09	2.7
30	Thur	•	9:25	-2.3	8:57	2.4

ALASKA DAYLIGHT TIME

67

HIGH Tides KODIAK District
JULY 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Fri	•	3:09	10.2	4:39	7.2
2	Sat	•	3:55	10.0	5:21	7.6
3	SUN	•	4:46	9.5	6:04	7.8
4	Mon	•	5:39	8.7	6:49	8.1
5	Tues	•	6:38	7.6	7:34	8.3
6	Wed	•	7:44	6.6	8:27	8.5
7	Thur	•	9:06	5.7	9:22	8.6
8	Fri	●	10:37	5.3	10:19	8.8
9	Sat	●	NOON	5.3	11:16	8.9
10	SUN	●	.....	...	1:08	5.6
11	Mon	●	0:11	9.0	2:01	6.0
12	Tues	●	1:03	9.2	2:46	6.3
13	Wed	●	1:48	9.3	3:22	6.6
14	Thur	●	2:30	9.3	3:57	6.8
15	Fri	●	3:09	9.2	4:30	7.0
16	Sat	●	3:45	8.9	5:02	7.1
17	SUN	●	4:20	8.5	5:30	7.2
18	Mon	●	4:55	7.9	6:01	7.3
19	Tues	●	5:33	7.2	6:30	7.4
20	Wed	●	6:12	6.4	7:04	7.4
21	Thur	●	7:04	5.7	7:41	7.5
22	Fri	●	8:10	5.0	8:27	7.6
23	Sat	●	9:41	4.6	9:23	7.8
24	SUN	•	11:24	4.6	10:27	8.1
25	Mon	•	12:37	5.1	11:30	8.6
26	Tues	•	.....	...	1:29	5.7
27	Wed	•	0:28	9.3	2:14	6.3
28	Thur	•	1:21	9.9	2:53	6.9
29	Fri	•	2:12	10.3	3:29	7.5
30	Sat	•	3:00	10.4	4:08	8.1
31	SUN	•	3:49	10.1	4:46	8.5

● BIGGER THE DOT – BETTER THE FISHING

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LOW Tides KODIAK District
JULY 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Fri	•	10:07	-2.4	9:49	2.1
2	Sat	•	10:49	-2.2	10:43	1.9
3	SUN	•	11:31	-1.7	11:39	1.8
4	Mon	•	.....	...	12:14	-1.0
5	Tues	•	0:41	1.6	12:57	-0.1
6	Wed	•	1:51	1.4	1:42	0.9
7	Thur	•	3:06	1.1	2:34	1.8
8	Fri	•	4:22	0.6	3:33	2.6
9	Sat	•	5:35	0.1	4:39	3.1
10	SUN	●	6:34	-0.5	5:46	3.2
11	Mon	●	7:26	-0.9	6:47	3.2
12	Tues	●	8:12	-1.2	7:37	3.0
13	Wed	●	8:52	-1.4	8:22	2.7
14	Thur	●	9:27	-1.4	9:04	2.6
15	Fri	●	9:59	-1.3	9:43	2.5
16	Sat	●	10:30	-1.1	10:20	2.3
17	SUN	●	11:01	-0.7	11:02	2.3
18	Mon	●	11:27	-0.1	11:44	2.2
19	Tues	●	11:58	0.5	.....	...
20	Wed	●	0:29	2.2	12:25	1.1
21	Thur	●	1:20	2.1	12:57	1.8
22	Fri	●	2:24	2.0	1:35	2.4
23	Sat	●	3:36	1.7	2:27	3.0
24	SUN	•	4:51	1.1	3:36	3.4
25	Mon	•	5:57	0.3	4:54	3.5
26	Tues	•	6:52	-0.6	6:05	3.3
27	Wed	•	7:41	-1.4	7:05	2.8
28	Thur	•	8:23	-2.0	8:01	2.1
29	Fri	•	9:05	-2.3	8:52	1.5
30	Sat	•	9:45	-2.4	9:43	1.0
31	SUN	•	10:25	-2.0	10:33	0.6

ALASKA DAYLIGHT TIME

69

HIGH Tides KODIAK District
AUGUST 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Mon	•	4:38	9.4	5:27	8.9
2	Tues	•	5:29	8.4	6:07	9.0
3	Wed	•	6:27	7.3	6:52	8.9
4	Thur	•	7:31	6.2	7:42	8.7
5	Fri	•	8:51	5.3	8:39	8.4
6	Sat	•	10:33	4.9	9:49	8.2
7	SUN	●	12:02	5.1	10:59	8.2
8	Mon	●	.....	...	1:08	5.6
9	Tues	●	2:02	8.4	1:56	6.0
10	Wed	●	0:55	8.7	2:27	6.5
11	Thur	●	1:40	8.9	2:57	6.9
12	Fri	●	2:18	9.0	3:26	7.2
13	Sat	●	2:54	8.9	3:51	7.5
14	SUN	●	3:29	8.7	4:16	7.7
15	Mon	●	4:01	8.3	4:41	7.8
16	Tues	●	4:34	7.8	5:06	7.9
17	Wed	●	5:09	7.1	5:31	7.9
18	Thur	●	5:48	6.4	6:03	7.9
19	Fri	●	6:33	5.6	6:38	7.8
20	Sat	●	7:33	4.9	7:25	7.7
21	SUN	●	9:12	4.5	8:31	7.6
22	Mon	●	11:07	4.6	9:52	7.9
23	Tues	●	12:18	5.2	11:09	8.4
24	Wed	•	.....	...	1:04	6.0
25	Thur	•	0:15	9.1	1:43	6.8
26	Fri	•	1:11	9.7	2:21	7.6
27	Sat	•	2:03	10.1	2:56	8.4
28	SUN	•	2:50	10.1	3:32	9.1
29	Mon	•	3:40	9.7	4:07	9.5
30	Tues	•	4:28	9.0	4:46	9.7
31	Wed	•	5:18	8.0	5:27	9.5

● BIGGER THE DOT – BETTER THE FISHING

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LOW Tides KODIAK District
AUGUST 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Mon	•	11:03	-1.4	11:27	0.4
2	Tues	•	11:40	-0.5	.....	...
3	Wed	•	0:22	0.4	12:21	0.6
4	Thur	•	1:25	0.5	1:04	1.6
5	Fri	•	2:37	0.6	1:52	2.6
6	Sat	•	4:00	0.6	2:58	3.3
7	SUN	●	5:21	0.3	4:24	3.7
8	Mon	●	6:29	-0.1	5:43	3.6
9	Tues	●	7:17	-0.5	6:44	3.2
10	Wed	●	7:57	-0.8	7:33	2.7
11	Thur	●	8:32	-0.9	8:12	2.3
12	Fri	●	9:01	-1.0	8:50	2.0
13	Sat	●	9:30	-0.9	9:24	1.6
14	SUN	●	9:55	-0.6	9:59	1.4
15	Mon	●	10:23	-0.2	10:36	1.3
16	Tues	●	10:48	0.3	11:11	1.2
17	Wed	●	11:11	0.9	11:50	1.2
18	Thur	●	11:38	1.5	.....	...
19	Fri	●	0:38	1.4	12:04	2.2
20	Sat	●	1:34	1.5	12:42	2.8
21	SUN	•	2:50	1.4	1:31	3.4
22	Mon	•	4:16	1.1	3:01	3.8
23	Tues	•	5:31	0.4	4:40	3.6
24	Wed	•	6:28	-0.5	5:57	3.0
25	Thur	•	7:17	-1.2	6:58	2.1
26	Fri	•	7:58	-1.7	7:51	1.1
27	Sat	•	8:36	-1.9	8:40	0.2
28	SUN	•	9:15	-1.7	9:29	-0.5
29	Mon	•	9:53	-1.2	10:18	-0.8
30	Tues	•	10:31	-0.5	11:08	-0.9
31	Wed	•	11:07	0.4	.....	...

ALASKA DAYLIGHT TIME

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HIGH Tides KODIAK District
SEPTEMBER 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Thur	●	6:12	6.9	6:09	9.1
2	Fri	●	7:15	5.9	6:57	8.5
3	Sat	●	8:40	5.1	8:02	7.9
4	SUN	●	10:27	5.0	9:21	7.5
5	Mon	●	11:57	5.3	10:45	7.5
6	Tues	●	12:47	5.8	11:54	7.8
7	Wed	•	.....	...	1:24	6.4
8	Thur	•	0:45	8.1	1:53	6.9
9	Fri	•	1:24	8.3	2:18	7.3
10	Sat	•	2:03	8.5	2:43	7.8
11	SUN	●	2:38	8.4	3:08	8.1
12	Mon	●	3:10	8.3	3:30	8.3
13	Tues	●	3:42	7.9	3:55	8.5
14	Wed	●	4:17	7.5	4:17	8.5
15	Thur	●	4:49	6.9	4:42	8.4
16	Fri	●	5:27	6.2	5:13	8.3
17	Sat	●	6:14	5.6	5:50	8.0
18	SUN	•	7:20	4.9	6:40	7.7
19	Mon	•	9:01	4.6	7:55	7.5
20	Tues	•	10:51	5.0	9:28	7.6
21	Wed	•	11:50	5.7	10:57	8.0
22	Thur	•	.....	...	12:31	6.6
23	Fri	•	0:03	8.6	1:07	7.6
24	Sat	•	1:00	9.1	1:43	8.5
25	SUN	•	1:51	9.4	2:20	9.4
26	Mon	•	2:41	9.3	2:54	10.0
27	Tues	•	3:28	8.9	3:32	10.2
28	Wed	•	4:18	8.3	4:09	10.2
29	Thur	•	5:07	7.5	4:50	9.7
30	Fri	•	6:01	6.6	5:32	9.1

● BIGGER THE DOT – BETTER THE FISHING

LOW Tides KODIAK District
SEPTEMBER 1988

DATE	DAY	DOT'S GUIDE	AM TIME	AM FT	PM TIME	PM FT
1	Thur	●	0:00	-0.6	11:45	1.4
2	Fri	●	0:59	-0.1	12:27	2.4
3	Sat	●	2:11	0.4	1:20	3.2
4	SUN	●	3:35	0.8	2:39	3.8
5	Mon	●	5:01	0.7	4:24	3.9
6	Tues	●	6:07	0.4	5:45	3.5
7	Wed	●	6:52	0.1	6:39	2.9
8	Thur	●	7:29	-0.2	7:21	2.2
9	Fri	●	7:59	-0.3	7:58	1.6
10	Sat	●	8:27	-0.3	8:31	1.1
11	SUN	●	8:51	-0.2	9:03	0.6
12	Mon	●	9:16	0.1	9:35	0.3
13	Tues	●	9:42	0.5	10:07	0.2
14	Wed	●	10:06	1.0	10:43	0.1
15	Thur	●	10:31	1.5	11:21	0.3
16	Fri	●	10:59	2.1	.....	...
17	Sat	•	0:06	0.6	11:24	2.7
18	SUN	•	0:59	0.9	12:06	3.2
19	Mon	•	2:15	1.0	1:10	3.8
20	Tues	•	3:43	0.9	2:56	3.9
21	Wed	•	4:58	0.4	4:40	3.4
22	Thur	•	5:57	-0.2	5:51	2.4
23	Fri	•	6:43	-0.7	6:51	1.2
24	Sat	•	7:25	-0.9	7:40	0.0
25	SUN	•	8:04	-0.9	8:29	-1.0
26	Mon	•	8:43	-0.6	9:15	-1.7
27	Tues	•	9:20	-0.1	10:01	-1.9
28	Wed	•	9:59	0.6	10:48	-1.7
29	Thur	•	10:34	1.4	11:37	-1.2
30	Fri	•	11:16	2.2	.....	...

ALASKA DAYLIGHT TIME

Appendix M.2. Listing of processors in the Kodiak Management Area, 1988.

SHOREBASED:

KODIAK CITY:

1.	Alaska Fresh Seafood	486-5749	Dave Woodruff	105 Marine Way
	Fax:	486-6417	486-3792 (Home)	Kodiak, AK
2.	ALCOD	486-3883	Ray Spagnola	Box 648
	Fax:	486-8282	486-5829 (Home)	Kodiak, AK
3.	All Alaskan Seafoods	486-3266/3268	Tim Blott	Box 686
	Fax:	486-6490	486-5271 (Home)	Kodiak, AK
4.	Alaska Pacific Seafoods	486-3234	John Sevier	Box 2447
	Fax:	486-5164	486-5958 (Home)	Kodiak, AK
5.	Cook Inlet Processors	486-6385	Wayne Selby	Box 9
	Fax:	486-6592	486-5006 (Home)	Kodiak, AK
6.	Eagle Fisheries	486-5607	Gary Taylor	Box 868
	Fax:	486-6977	486-6469 (Home)	Kodiak, AK
7.	Eastpoint Fisheries	486-5799	Chuck Jensen	Box 1637
	Fax:	486-4079	-	Kodiak, AK
8.	International Seafoods	486-4760/4768	Neal Shuckerow	
	Fax:	486-4885	486-6565 (Home)	Kodiak, AK
9.	Kodiak King Crab, Inc.	486-5791	Stewart Lutten	Box 1457
	Fax:	486-8244	486-4315 (Home)	Kodiak, AK
10.	Skookumchuck Seafoods	486-4156/4157	Chris Tsaboris	
	(Faros Seafoods) Fax:	486-4780	486-2994	Kodiak, AK
11.	Ursin Seafoods	486-5724	Norm Ursin, Jr.	Box 492
	Fax:	486-6563	-	Kodiak, AK
12.	Western Alaska Seafoods	486-4112	Ken Allread	Box 2637
	Fax:	486-5588	486-4750 (Home)	Kodiak, AK

KODIAK BOROUGH:

1.	Chugach Fisheries		Del Valentine	c/o Uganik Plant
	N.E. Uganik			Kodiak, AK
2.	C-W-F- Kodiak	486-2660	Emil Norton	Box 1156
	Kodiak Airport		486-5178 (Home)	Kodiak, AK
3.	C-W-F Alitak	836-2226	John Jorgenssen	Box 1156
	Lazy Bay Fax:	836-2226		Kodiak, AK
4.	C-W-F Port Bailey	454-2454	Slim Jorgenssen	Box 1156
	Kupreanof St. Fax:	454-2454		Kodiak, AK
5.	Kodiak Salmon Company	847-2234/2251	Alan Beardsley	
	Larsen Bay Fax:	847-2250		

CHIGNIK:

1.	Aleutian Dragon Fisheries	749-2208/2276	Brad Resnick	Chignik, AK 99564
	Anch. Bay Fax:	749-2277		
2.	Chignik Pride Fisheries	749-2210/2264	Jim Long	Chignik, AK 96564
	Anch. Bay Fax:	749-2265		

Appendix M.3. Listing of Kodiak salmon user-group organizations for the Kodiak Management Area, 1988.

ORGANIZATION	ACRONYM	CONTACT	PRESIDENT	ADDRESS	PHONE	ESTABLISHED	MEMBERSHIP
United Fishermen's Marketing Assn.	U.F.M.A.	Jeif Stephan (Executive Director)	Ron Jolin	Box Kodiak	486-3453 (U.F.M.A. Office)		
Kodiak Island Seiners Assn.	K.I.S.A.	-	Leslie Smith	Box Kodiak	487-4939 (L. Smith Home)		
N.W. Kodiak Setnetters Assn.	N.W.K.S.A	-	Dan Ogg	Box Kodiak	486-8505 (D. Ogg Home)		
Olga/Moser Bay Setnetters Assn.	O.M.B.S.A	-	John Nuttal	Box Kodiak	486-5594 (J. Nuttal Home)		
Kodiak Area Beach Seiners Assn.	K.A.B.S.A	Jack Bennett	Gary Reed	Box Kodiak	486-5375 (G. Reed Home)		
Kodiak Regional Aquaculture Assn.	K.R.A.A.	Norma Holt (Admin. Assistant)	Oliver Holm	Box Kodiak	486-6555 (K.R.A.A. Office)		
Kodiak Fish & Game Advisory Committee	KFGAC	Dave Prokopowich (Secretary)	Oliver Holm	211 Mission Rd. Kodiak	486-4791 (ADF&G Kodiak)		
Kodiak Area Processors Assn.	K.A.P.A.						